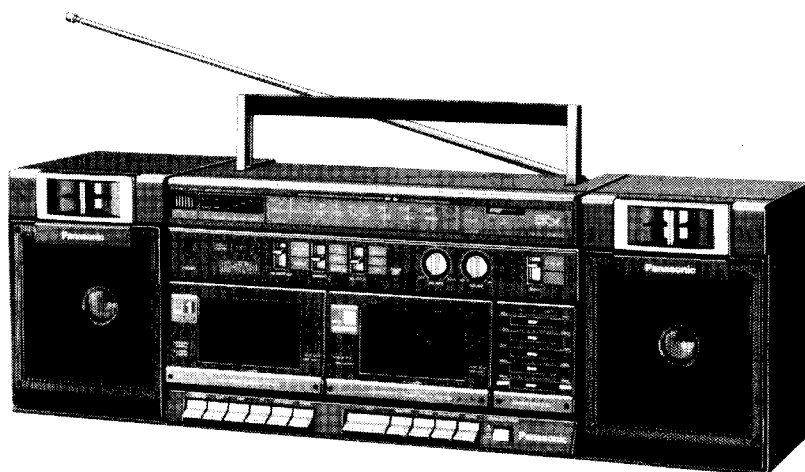


Service Manual

Portable Stereo Component System

Radio Cassette
RX-CW30
(Black)



This is the Service Manual
for the following areas.

M ... For U.S.A.

C ... For Canada.

RX-CW30 MECHANISM SERIES

■ SPECIFICATIONS

General:

Power Requirement: AC; 120V, 60Hz
Battery; 12V (Eight "D" Size Flashlight Batteries)

(Panasonic UM-1 or equivalent)

Power Consumption: 27W (AC only)

Power Output: 15W (7.5W × 2)...RMS max.

Speaker: Woofer; 5" (12cm) PM Dynamic Speaker (2.7Ω)

Tweeter; 3/4" (2cm) × 1 1/2" (4cm)

Ceramic Speaker (1.4kΩ)

Input: MIX MIC; sensitivity 1.6mV/applicable microphone impedance 200~600Ω (φ3.5)

Line in/CD; sensitivity

250mV/47kΩ over

Output: Ext SP; 2.7~8Ω

Headphones; 32Ω (φ3.5)

Dimensions:

Main unit;

12 11/16" (W) × 7 3/8" (H) × 6 5/8" (D)

[322(W) × 187(H) × 169(D)]mm

Speaker box;

5 1/4" (W) × 7 3/8" (H) × 5 5/8" (D)

[134(W) × 187(H) × 147(D)]mm

Weight:

9 lbs. 11.2 oz (4.41 kg) without batteries

Radio Section:

Radio Frequency Range: FM; 88~108MHz

AM; 525~1610kHz

Intermediate Frequency: FM; 10.7MHz

AM; 455kHz

Sensitivity: FM; 2μV/50mW output

AM; 70μV/m/50mW output

Tape Deck Section:

Frequency Response: 70~14,000Hz (with normal tape)

Recording System: AC bias, Magnet erase (TAPE-[2] only)

Tape Speed: 1 7/8 ips (4.8cm/s)

Track System: 4-track 2 channel stereo recording and playback

Weights and dimensions shown are approximate.

(Les poids et dimensions mentionnés sont approximatifs.)

Design and specifications are subject to change without notice.

Panasonic®

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50 Meadowland Parkway,
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MC-Service

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SAFETY PRECAUTIONS (For U.S.A.)

- 1. Before servicing, unplug the power cord to prevent an electric shock.
- 2. When replacing parts, use only manufacturer's recommended components for safety.
- 3. Check the condition of the power cord. Replace if wear or damage is evident.
- 4. After servicing, be sure to restore the lead dress, insulation barriers, insulation papers, sheilds, etc.
- 5. Before returning the serviced equipment to the customer, be sure to make the following insulation resistance test to prevent the customer from being exposed to a shock hazard.

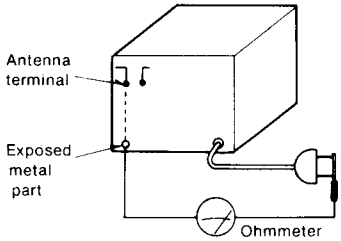


Fig. 1
Resistance = 3 MΩ — 5.2 MΩ

INSULATION RESISTANCE TEST (For U.S.A.)

- 1. Unplug the power cord and short the two prongs of the plug with a jumper wire.
- 2. Turn on the power switch.
- 3. Measure the resistance value with ohmmeter between the jumpered AC plug and each exposed metal cabinet part, such as screwheads, antenna, control shafts, handle brackets, etc. Equipment with antenna terminals should read between 3 MΩ and 5.2 MΩ to all exposed parts*. (Fig. 1) Equipment without antenna terminals should read approximately infinity to all exposed parts. (Fig. 2)
* **Note:** Some exposed parts may be isolated from the chassis by design. These will read infinity.
- 4. If the measurement is outside the specified limits, there is a possibility of a shock hazard. The equipment should be repaired and rechecked before it is returned to the customer.

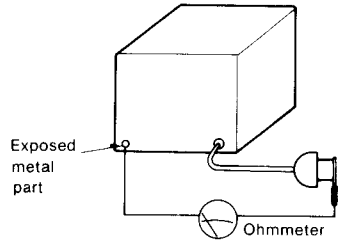
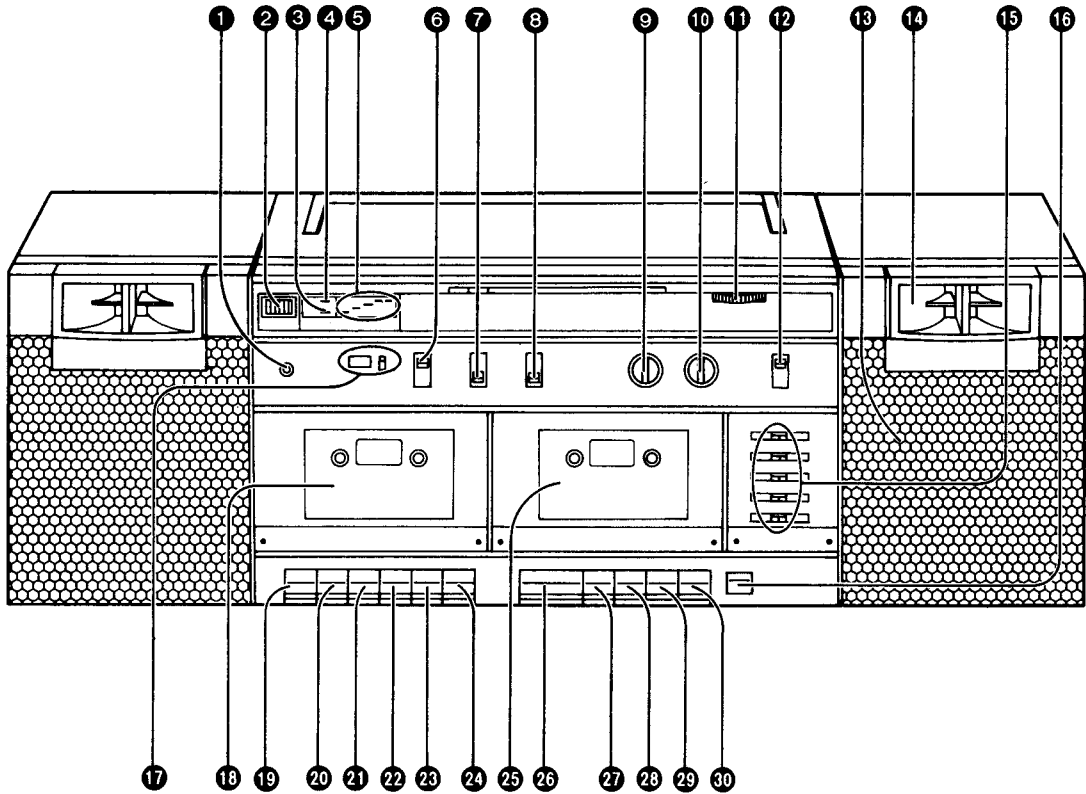


Fig. 2
Resistance = Approx ∞

LOCATION OF CONTROLS AND COMPONENTS



- 1 Headphones Jack (PHONES) [32Ω/φ3.5]
- 2 Built-in Microphone (MIC)
- 3 Power Indicator (POWER)
- 4 FM Stereo Indicator (FM ST)
- 5 Level Meter (5-LED LEVEL METER)
- 6 FM Mode Selector/Beat Proof Switch (FM MODE/B.P)
- 7 Dubbing Speed Selector (DUBBING)
- 8 Function Selector (SELECTOR)
- 9 Balance Control (BALANCE)
- 10 Volume Control (VOLUME)
- 11 Tuning Control (TUNING)
- 12 Band Selector (BAND)
- 13 Speakers (Woofer) [5"(12 cm) 2.7Ω]
- 14 Speakers (Tweeter) [3/4" (2 cm) × 1 1/2" (4 cm) 1.4 kΩ]
- 15 Graphic Equalizer/Frequency Distribution Equalizer Controls (GRAPHIC EQ/F.D.EQ)
- 16 Equalizer Mode Selector (EQUALIZER MODE)

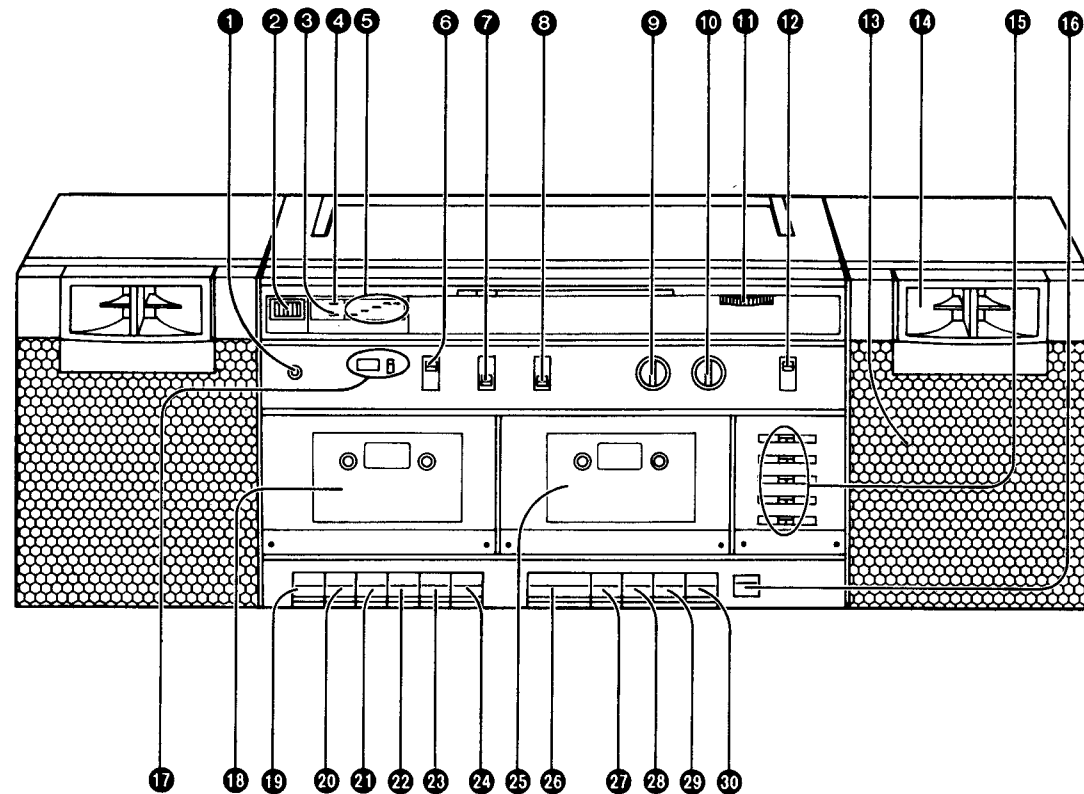
Deck 1

- 17 Tape Counter and Reset Button (DECK 1 COUNTER)
The digits return to "000" when the Reset Button is pressed. The digits advance with the tape to provide a reference to quickly find a desired portion of the tape.
- 18 Cassette Compartment
- 19 Record Button (● RECORD)
- 20 Playback Button (▶ PLAY)
- 21 Rewind Button (◀ REW)
- 22 Fast Forward Button (▶ FF)
- 23 Stop/Eject Button (■/▲ STOP/EJECT)
- 24 Pause Button (|| PAUSE)

Deck 2

- 25 Cassette Compartment
- 26 Playback Button (▶ PLAY)
- 27 Rewind/Review Button (◀ REW/REV)
- 28 Fast Forward/Cue Button (▶ FF/CUE)
- 29 Stop/Eject Button (■/▲ STOP/EJECT)
- 30 Pause Button (|| PAUSE)

LOCATION OF CONTROLS AND COMPONENTS



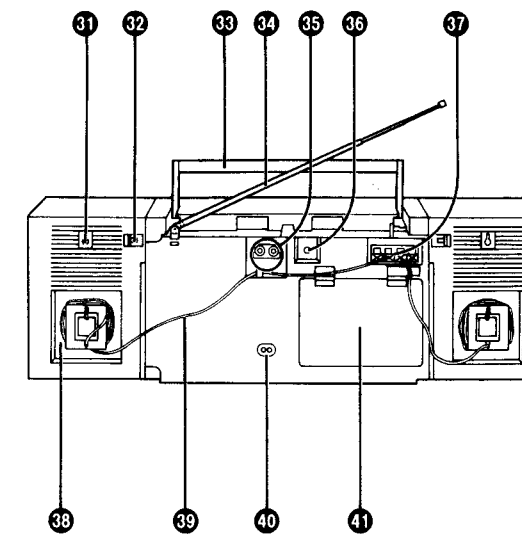
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- 24 Pause Button (|| PAUSE)

Deck 2

- 25 Cassette Compartment
- 26 Playback Button (▶ PLAY)
- 27 Rewind/Review Button (◀ REW/REV)
- 28 Fast Forward/Cue Button (▶▶ FF/CUE)
- 29 Stop/Eject Button (■/▲ STOP/EJECT)
- 30 Pause Button (|| PAUSE)



- 31 Speaker Wall Mounts
- 32 Speaker Release Levers (RELEASE)
- 33 Handle
- 34 Telescopic Antenna
- 35 Line Input/CD Jacks (LINE IN/CD) [250 mV/47 kΩ]
- 36 Mixing Microphone Jack (MIXING MIC) [1.6 mV (200~600Ω) φ3.5]
- 37 Speaker Terminals (SPEAKER IMP 2.7~8Ω)
- 38 Speaker Cable Compartments
- 39 Speaker Cables
- 40 AC Socket (AC IN~)
- 41 Battery Compartment

BATTERY SERVICE LIFE

UM-1 (D-size) Batteries

Approx. 30 hours of recording (EIAJ)

Approx. 10.5 hours of playback (EIAJ) with volume set at 8.5 position

The above battery service life is measured according to the conditions set forth by EIAJ (Electronic Industries Association of Japan). As the battery service life varies with the method of operation and environmental conditions, use these values as reference.

■ OPERATING INSTRUCTIONS

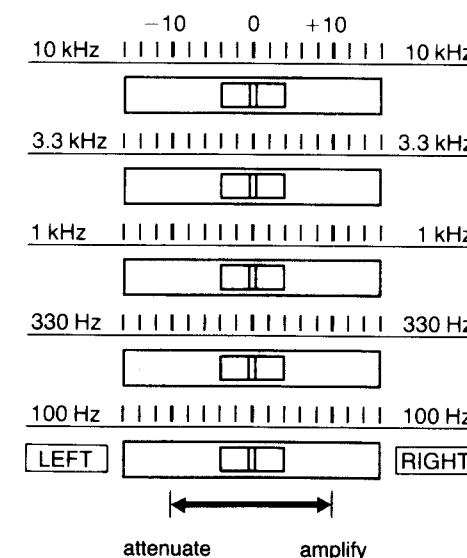
• Graphic Equalizer

Set the Equalizer Mode Selector to "G.EQ".

The Graphic Equalizer allows you to tailor the frequency response of the unit to compensate for room acoustics and other factors which affect frequency response. The overall tone can be altered by adjusting the five controls which control the following frequency bands:

100 Hz, 330 Hz, 1 kHz, 3.3 kHz, 10 kHz.

Positioning the control to the "+" side of the detent (center) will amplify the corresponding frequency band; the "-" side will attenuate it.

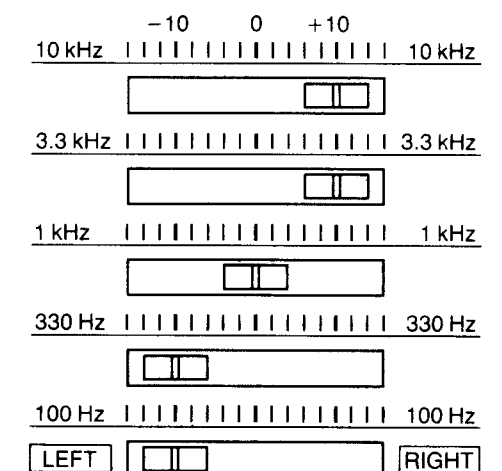


• Frequency Distribution Equalizer

Set the Equalizer Mode Selector to "F.D.EQ".

The Frequency Distribution Equalizer allows you to accent a specific frequency sound and divide it into the right and left speakers as you like.

For example, when listening to the low frequency sound (100 Hz, 330 Hz) from left speaker and high frequency sound (3.3 kHz, 10 kHz) from right speaker, set the controls as shown below.



DISASSEMBLY INSTRUCTIONS

■ MAIN UNIT SECTION

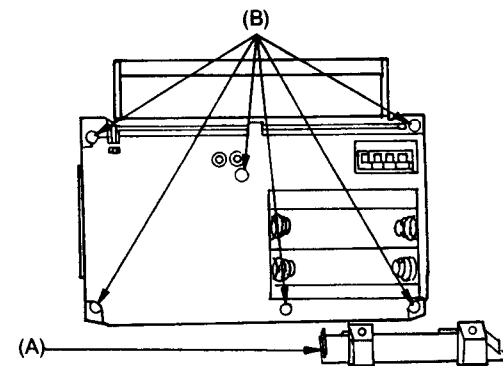


Fig. 1

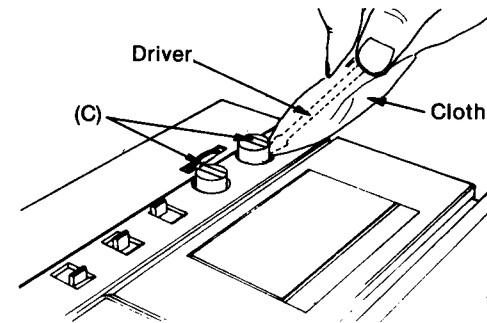


Fig. 2

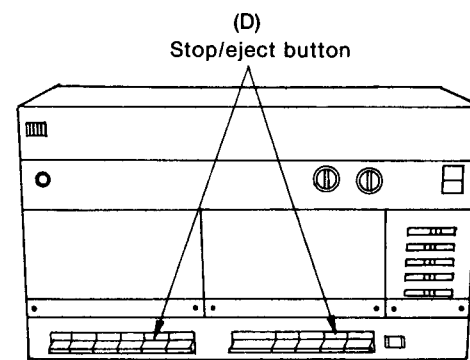


Fig. 3

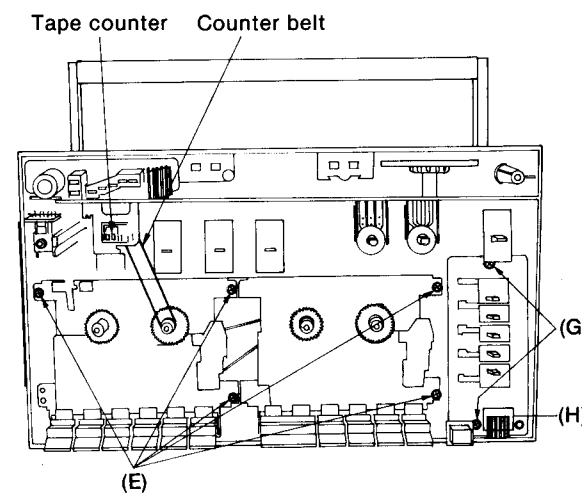


Fig. 4

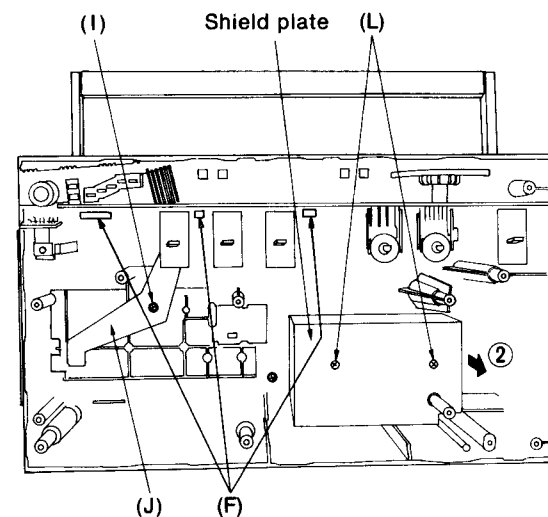


Fig. 5

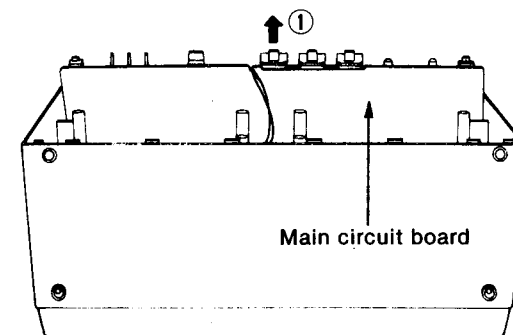


Fig. 6

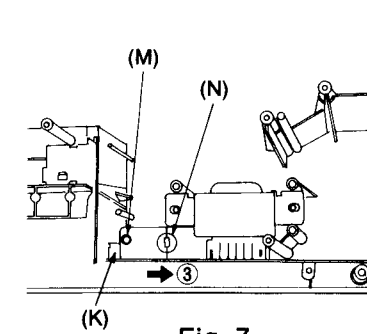


Fig. 7

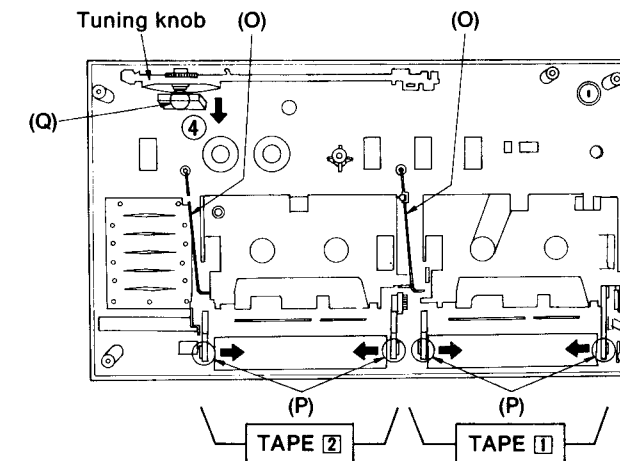


Fig. 8

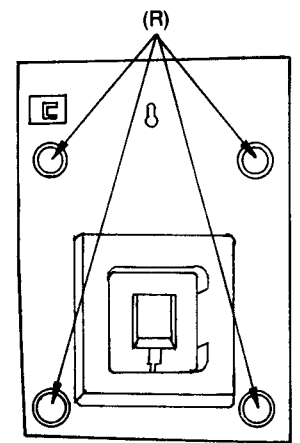


Fig. 9

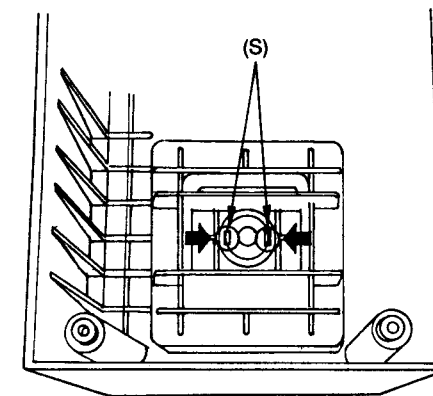


Fig. 10

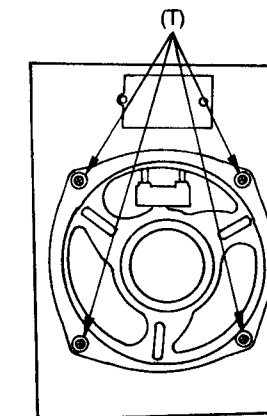


Fig. 11

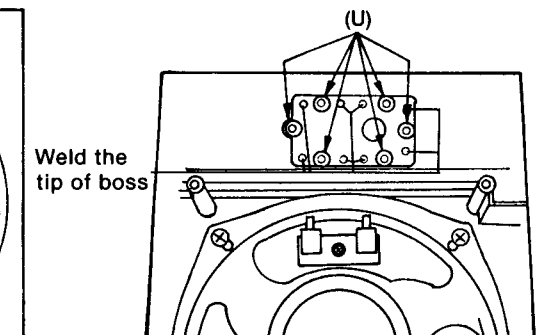


Fig. 12

■ Main Unit Section

Ref No.	Shown in Fig. —	To remove —	Remove —
1	1	Front Cabinet Ass'y	Remove the battery cover (A) × 1
2	1		Screw (3 × 50) mm (B) × 6
3	2		Remove the knob by used ⊖ driver (C) × 2
4	3		Push the Stop/Eject button (Tape 1 & 2) (D) × 2
5	4	Mechanism Unit (Tape 1 & 2)	Remove the counter belt and pull out the tape counter.
6	5		Screw (3 × 2) mm (E) × 5
7	5		Socket (F) × 3
8	4	Graphic EQ Circuit Board	Screw (3 × 12) mm (G) × 2
9	4		Ribbon socket (H) × 1
10	5	Main Circuit Board	Screw (3 × 14) mm (I) × 1
11	5		Record/playback lever (J) × 1
12	7		Socket (K) × 1
13	6		Pull out the main circuit board in the direction of arrow ①.
14	5	Power Supply Circuit Board	Screw (3 × 12) mm (L) × 2
15	5		Pull out the shield plate in the direction of arrow ②.
16	7		Screw (3 × 12) mm (M) × 1
17	7		Remove the rib in the direction of arrow ③. (N) × 1

Ref No.	Shown in Fig. —	To remove —	Remove —
18	8		Cassette holder spring (O) × 1
19	8	Cassette Compartment Cover (Tape ① & ②)	Remove the cassette compartment cover by pulling one side at a time toward the front of the set while pushing it with a standard screwdriver in the direction of the arrow. (P) × 2
20	8	Tuning Knob	Push the rib in the direction of arrow ④ (Q) × 1

■ Speaker Box Section

Ref No.	Shown in Fig. —	To remove —	Remove —
21	9	Rear Cabinet Ass'y	Screw (3 × 25) mm (R) × 4
22	10	Cord Bushing	Remove the rib in the direction of arrow (S) × 2
23	11	Speaker (Woofer)	Screw (3 × 8) mm (T) × 4
24	12	Speaker (Tweeter) (*1)	Weld the tip of boss at the six position. (U) × 6

(*1) When replacing the tweeter, attach the tweeter to the speaker cabinet by welding it to the remainder of the boss.

CAUTION ON DISASSEMBLY AND ASSEMBLY

■ DISCONNECTION OF RIBBON CABLES FROM MECHANISM CIRCUIT BOARD

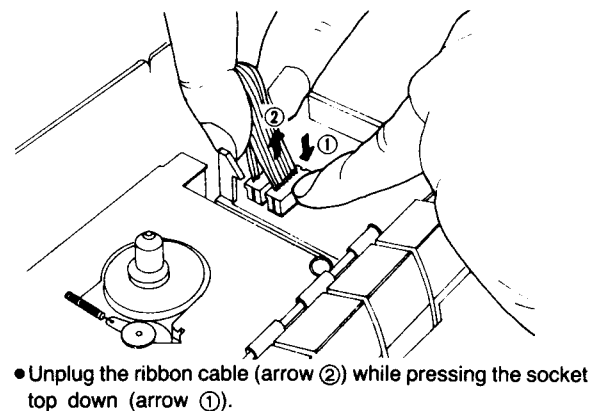


Fig. 13

■ 0 (ZERO) POINT ADJUSTMENT

1. Line up the dial point in the front cabinet assembly with the "0" point graduation as shown in Fig. 15.
2. Turn the variable capacitor gear on the main circuit board all the way in the direction of arrow ③.
3. Next, assemble the front and rear cabinets, and the 0 (zero) point adjustment is complete.

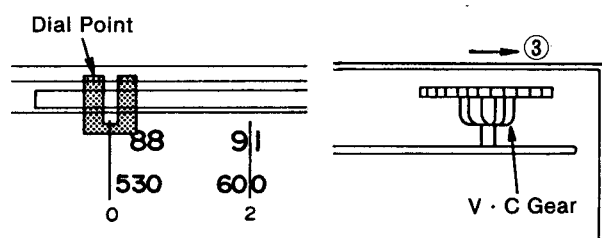
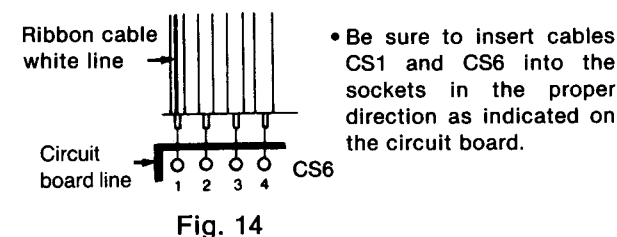


Fig. 15

Fig. 16

■ CONNECTION OF RIBBON CABLE



■ SHIELD PLATE ATTACHMENT

To attach the shield plate to the power transformer, follow the procedure described below.

1. Slide the boss on the rear cabinet ass'y through the shield plate hole as shown in Fig. 17.
2. Lower the shield plate until the sides rest in the five rib assemblies provided. Be sure to secure the shield plate at the correct position. (See Fig. 18)
3. Securely fasten the shield plate and the power transformer to the rear cabinet ass'y using the two screws (A).

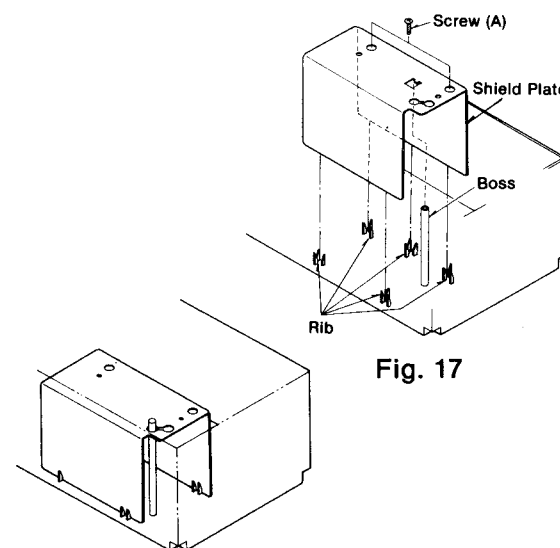
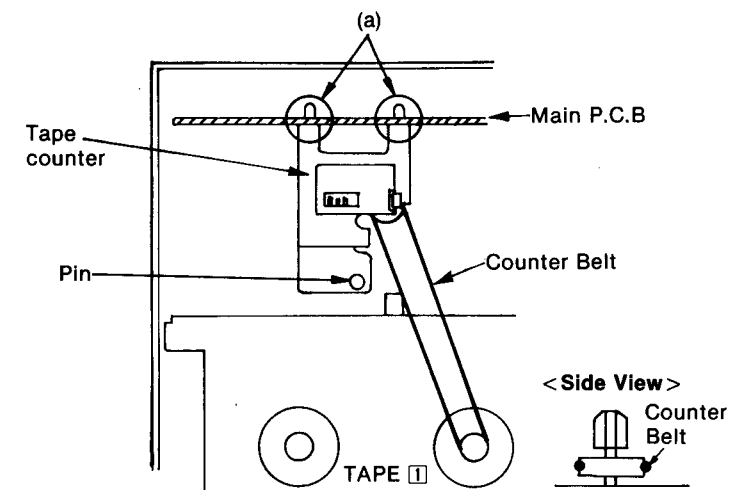


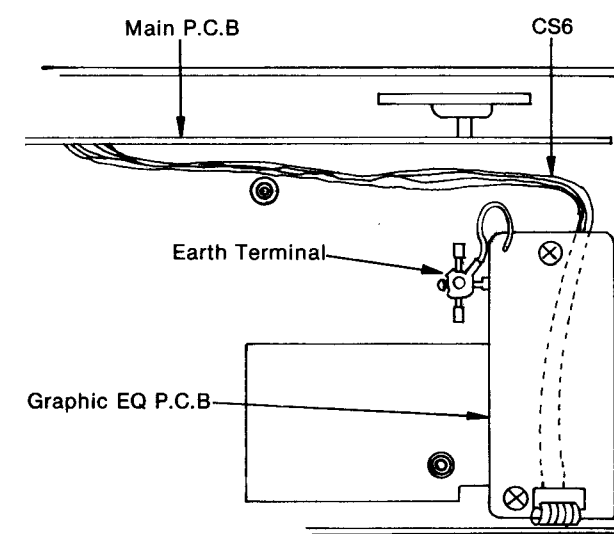
Fig. 18

■ ASSEMBLY OF TAPE COUNTER

1. Insert the tape counter in the hole (a) on the main circuit board as shown in Fig. 17.
2. Secure the tape counter in place with the positioning pin.
3. Attach the counter belt as shown in Fig. 17, while being careful not to twist the belt or allow grease to come in contact with it.

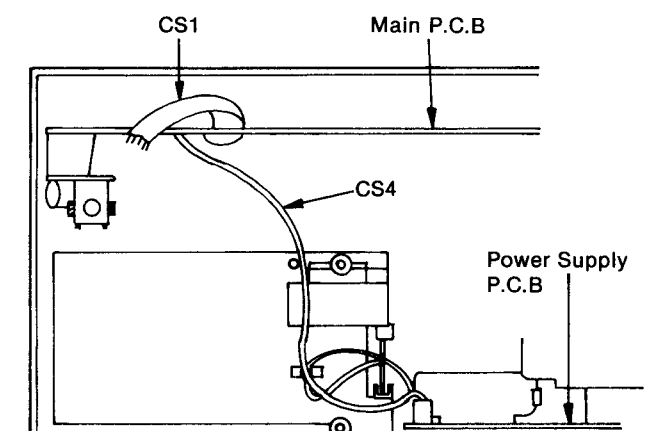


■ PLACEMENT OF WIRING WHEN ASSEMBLING THE GRAPHIC EQ PC BOARD

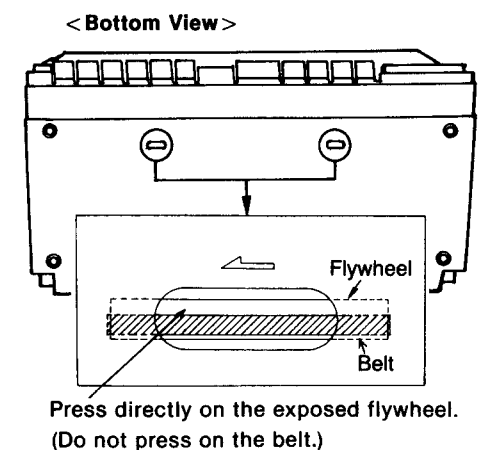


■ PLACEMENT OF WIRING WHEN ASSEMBLING THE MAIN PC BOARD

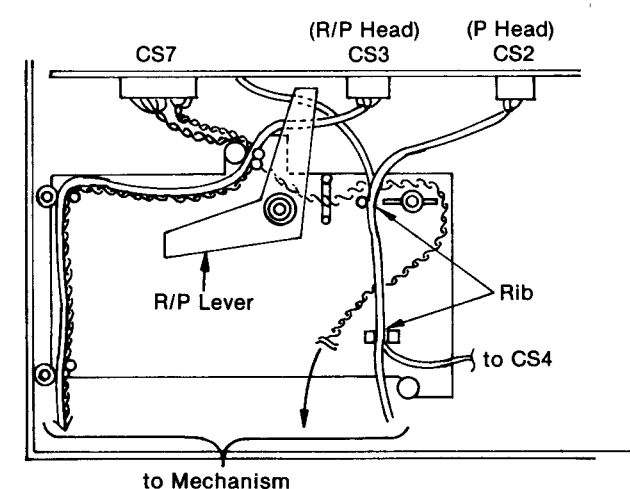
When assembling the main circuit board, be sure to lead the ribbon cable (CS1) out from the top.



■ HOW TO REMOVE A TANGLED TAPE



■ PLACEMENT OF MECHANISM WIRING



■ ASSEMBLY OF TAPE COUNTER

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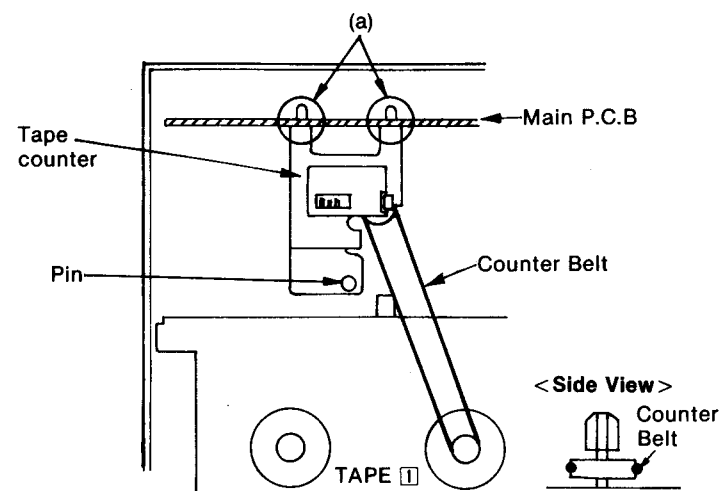


Fig. 17

■ PLACEMENT OF WIRING WHEN ASSEMBLING THE GRAPHIC EQ PC BOARD

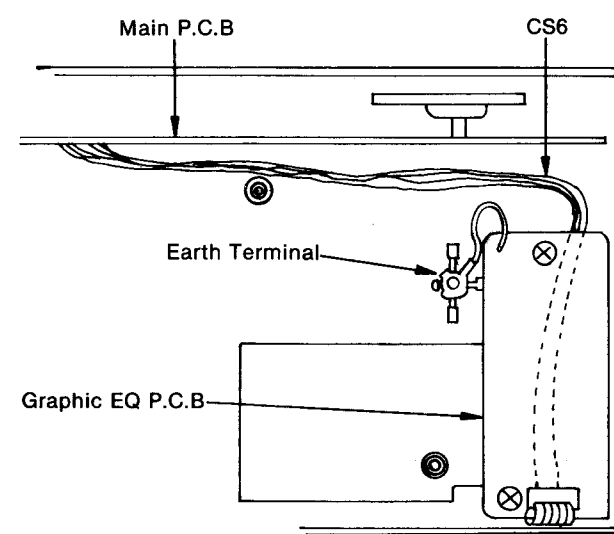


Fig. 18

■ PLACEMENT OF MECHANISM WIRING

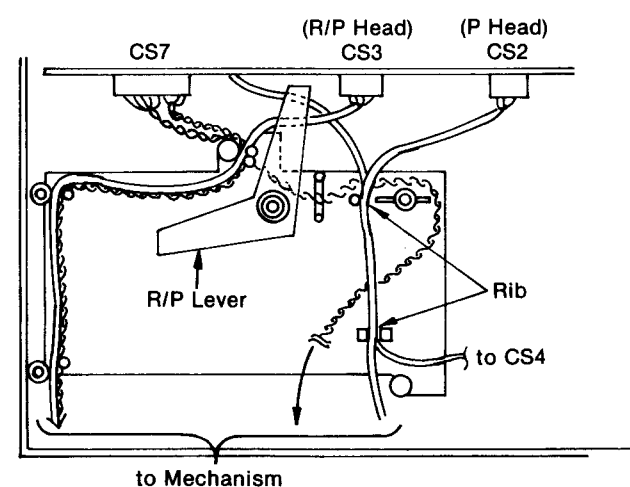


Fig. 20

■ PLACEMENT OF WIRING WHEN ASSEMBLING THE MAIN PC BOARD

When assembling the main circuit board, be sure to lead the ribbon cable (CS1) out from the top.

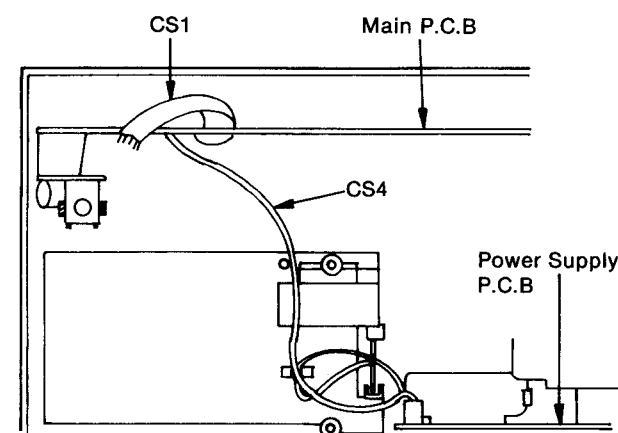
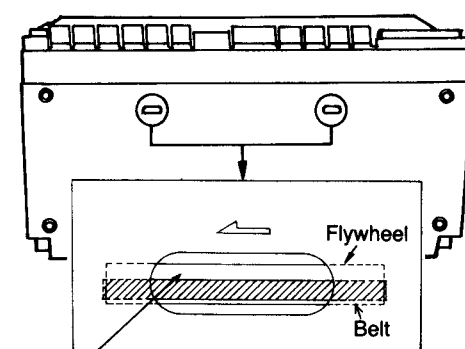


Fig. 19

■ HOW TO REMOVE A TANGLED TAPE

< Bottom View >



Press directly on the exposed flywheel.
(Do not press on the belt.)

Fig. 21

MEASUREMENTS AND ADJUSTMENTS

■ ALIGNMENT INSTRUCTION

READ CAREFULLY BEFORE ATTEMPTING ALIGNMENT

1. Set volume control maximum.
2. Set balance control to center.
3. Set graphic equalizer to center.
4. Set band switch to AM or FM ST.
5. Set function selector to radio.
6. Set power source voltage to 12V DC.
7. Output of signal generator should be no higher than necessary to obtain an output reading.

■ AM ALIGNMENT

BAND	SIGNAL GENERATOR or SWEEP GENERATOR		RADIO DIAL SETTING	INDICATOR (ELECTRONICS VOLTMETER or SCOPE)	ADJUSTMENT	REMARKS
	CONNECTIONS	FREQUENCY				
AM-IF ALIGNMENT						
(1)	AM	Fashion loop of several turns of wire and radiate signal into loop of receiver.	455 kHz 30% Mod. at 400 Hz	Point of non-interference. (on/about 600 kHz)	Output meter across voice coil.	T2 (AM 1st IFT) T3 (AM 2nd IFT) Adjust for maximum output. (Refer to fig. 2)
AM-RF ALIGNMENT						
(2)	AM	"	511 kHz	Tuning capacitor fully closed.	"	L4 (AM OSC Coil) Adjust for maximum output.
(3)	AM	"	1,660 kHz	Tuning capacitor fully open.	"	CT4 (AM OSC Trimmer) "
(4)	AM	"	550 kHz	Tune to signal.	"	(+ 1) L3 (AM ANT Coil) Adjust for maximum output. Adjust L3 by moving coil bobbin along ferrite core.
(5)	AM	"	1,500 kHz	"	"	CT3 (AM ANT Trimmer) Adjust for maximum output. Repeat steps (2)~(5).
(•1) Cement antenna bobbin with wax after completing alignment.						

(+1) Cement antenna bobbin with wax after completing alignment.

■ FM ALIGNMENT

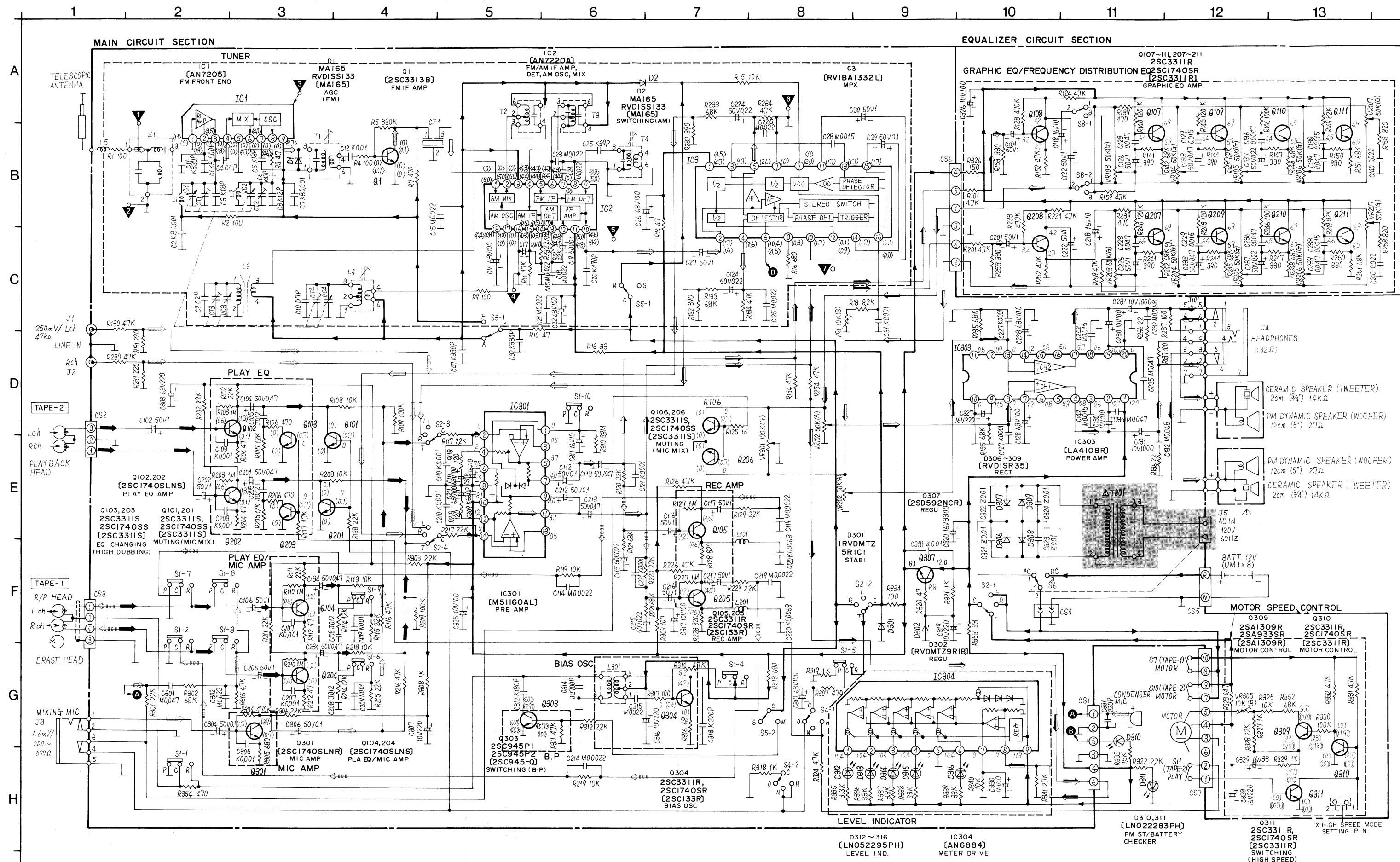
BAND	SIGNAL GENERATOR or SWEEP GENERATOR		RADIO DIAL SETTING	INDICATOR (ELECTRONICS VOLTMETER or SCOPE)	ADJUSTMENT	REMARKS	
	CONNECTIONS	FREQUENCY					
	FM-IF ALIGNMENT						
(1)	FM	High side thru. 0.001 μ F to test point ∇ . Negative side to test point ∇ .	10.7 MHz (SWP.)	Point of non-interference. (on/about 90 MHz)	Connect vert. amp. of scope to test point ∇ . Negative side to test point ∇ .	T1 (FM 1st IFT)	Adjust for maximum amplitude. (Refer to fig. 3)
(2)	FM	"	"	"	"	T4 (FM 2nd IFT)	Adjust for maximum amplitude. (Refer to fig. 4)
	FM-RF ALIGNMENT						
(3)	FM	Connect to test point ∇ through FM dummy antenna. Negative side to test point ∇ .	86.2 MHz	Variable capacitor fully closed.	Output meter across voice coil.	L2 (FM OSC Coil)	(+2) Adjust for maximum output.
(4)	FM		109.2 MHz	Variable capacitor fully open.	"	CT2 (FM OSC Trimmer)	"
(5)	FM		106 MHz	"	"	CT1 (FM ANT Trimmer)	(+2) Adjust for maximum output. Repeat steps (3)~(5).
(+2) Three output responses will be present; proper tuning is the center frequency.							

(+2) Three output responses will be present; proper tuning is the center frequency.

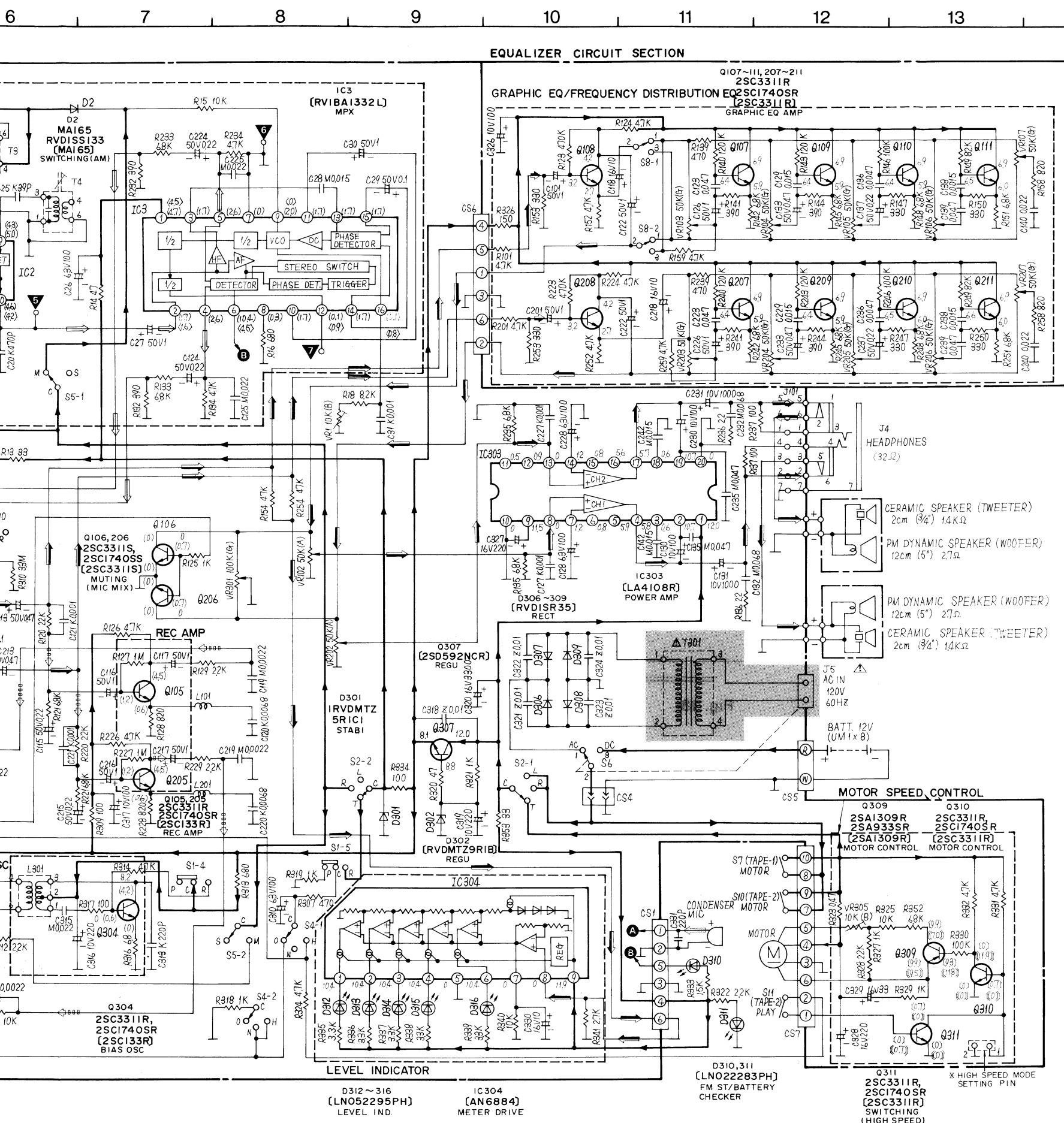
■ SEPARATION ALIGNMENT

ITEM	FM SIGNAL GENERATOR SOURCE CONNECTION	EQUIPMENT CONNECTION ELECTRONIC COUNTER	ADJUSTMENT	SPECIFICATION	REMARKS
Adjustment of pilot signal.	98 MHz, 60 dB (CW) Connect to test point ∇ through FM dummy antenna. Negative side to test point ∇ .	∇ ...(+) ∇ ...(-)	VR1	19 kHz	Adjust VR1, for 19 kHz (± 100 Hz) reading on electronics counter.

SCHEMATIC DIAGRAM



SCHEMATIC DIAGRAM



NOTES:

1. S1-1~S1-10: Record/playback select switch in "Playback" position.
2. S2-1~S2-4: Function select switch in "TAPE/OFF" position.
3. S3-1: Band select switch in "AM" position.
4. S4-1, S4-2: Dubbing speed select switch in "OFF" position.
5. S5-1, S5-2: FM mode/beat proof switch in "FM ST/III" position.
6. S6: AC/DC IN select switch in "AC IN" position.
7. S7: Motor ON/OFF switch in "OFF" position. [TAPE-1]
8. S8-1, S8-2: Equalizer mode select switch in "G. EQ" position.
9. S10: Motor ON/OFF switch in "OFF" position.
10. S11: Play switch in "OFF" position.
11. VR1: VCO oscillator frequency adjust VR.
12. VR102, 202: Volume control.
13. VR103~107, 203~207: Equalizer control (100Hz/330Hz/1kHz/33kHz/10kHz).
14. VR301: Balance control.
15. VR305: Tape speed adjustment VR.
16. The mark (▼) shows test point e.g. ▼ = test point 1.
17. **Important safety notice**
The shaded area on this schematic diagram incorporates special features important for protection from fire and electrical shock hazards.
When servicing it is essential that only manufacturer's specified parts be used for the critical components in the shaded areas of the schematic.

18. DC voltage measurement are taken with electronics voltmeter from negative terminal of battery.
No mark ... Playback position, < > ... FM position,
() ... AM position, () ... Recording position,
< > ... PB (I) position, () ... BP (II), position
[] ... Normal speed dubbing mode,
[[]] ... High speed dubbing mode.
19. Battery current: No signal.....79mA
Maximum output:
Radio 1400mA
Tape/Playback.....1350mA
Tape/Recording.....160mA (VR min, LINE IN)
Normal Speed Dubbing...1370mA
20. Described in schematic diagram are two types of numbers; the supply parts number and production parts number for transistors and diodes. One type number is used for supply parts number and production parts number which they are identical.
e.g. Q1
2SC2412NRTB, LNSTB ← Production parts number
[2SC2412] ← Supply parts number
21. The supply parts number is described alone in the replacement parts list.

- **This schematic diagram may be modified at any time with the development of new technology.**

ELECTRICAL PARTS LIST

REPLACEMENT PARTS LIST

Important safety notice
Components identified by  mark have special characteristics important for safety.
When replacing any of these components, use only manufacturer's specified parts.

Ref. No.	Part No.	Part Name & Description	Ref. No.	Part No.	Part Name & Description
<u>INTEGRATED CIRCUITS</u>			<u>TRANSFORMERS</u>		
IC 1	AN7205	IC (FM FRONT END)	T 1, 4	RL14B153	IFT, FM 1st/2nd
IC 2	AN7220A	IC (FM/AM IF AMP & DET, AM OSC, MIX)	T 2	RLI2B207	IFT, AM 1st
IC 3	RV1BA1332L	IC (FM MPX)	T 3	RLI2B217	IFT, AM 2nd
IC 301	M51160AL	IC (PRE AMP)	T 301	RLT5K4C1B	Power Transformer Δ
IC 303	LA4108R	IC (Power AMP)			
IC 304	AN6884	IC (METE DRIVER)			
<u>TRANSISTORS</u>			<u>VARIABLE CAPACITORS</u>		
Q 1	25C3313B	Transistor (FM IF AMP)	VC 1, 2, 3, 4	RCV4LC2V2K	Variable Capacitor/with CT 1, 2, 3, 4
Q 101, 103, 206	25C3311S	Transistor (Muting, EQ CONT)			
Q 102, 104, 202, 204	25C1740SLNS	Transistor (PLAY EQ/MIC AMP)			
Q 105, 205, 304, 310, 311	25C3311R	Transistor (REC AMP, BIAS OSC etc)			
Q 107, 109, 110, 111, 207, 209, 210, 211	25C3311R	Transistor (G EQ AMP)			
Q 108, 208	25C3311S	Transistor (EQ AMP)			
Q 301	25C1740SLNR	Transistor (MIC AMP)			
Q 303	25C945-Q	Transistor (B*P CHANGE)			
Q 307	25D592NCR	Transistor (REGULATOR)			
Q 309	25A1309R	Transistor (Motor Control)			
<u>DIODES & RECTIFIERS</u>			<u>VARIABLE RESISTORS</u>		
D 1, 2	MA165	Diode (SWITCHING)	VR 1	QVNB3A00B103	FM VCO Adjustment VR, 10kΩ (B)
D 301	RVDMTZ5R1C	Diode (STAB)	VR 102, 202	EWCUHAF10A54	Volume Control, 50kΩ (A)
D 302	RVDMTZ9R1B	Diode (REGULATOR)	VR 103, 104, 105, 106, 107, 203, 204, 205, 206, 207	EWASA2C35G54	Equalizer Control, 100Hz/330Hz/1kHz/33kHz/10kHz
D 306, 307, 308, 309	RVD1SR35	Diode (RECTIFIER)	VR 301	EWB8MAF10G15	Balance Control, 100kΩ (G)
D 310, 311	LN022283PH	LED, FM*ST/Battery Checker	VR 305	RVNCC14B1	Tape Speed Adjustment VR, 10kΩ (B)
D 312, 313, 314, 315, 316	LN052295PH	LED, Level Meter			
<u>COILS</u>			<u>CERAMIC FILTERS</u>		
L 2	RLD4Y44	FM OSC	CF 1	RVF107WMZ	Ceramic Filter (10.7MHz)
L 3	RLF2V79	AM ANT			
L 4	RL02B105	AM OSC			
L 5	RLQY30S1	Choke			
L 101, 201	RLQZB822K	Choke			
L 301	RL09B17	Bias Oscillation			
			<u>FILTERS</u>		
			Z 1	RXABPMB6A	B.P.F
			<u>SWITCHES</u>		
			S 1	RSH2J04W	Slide Switch (Record/Playback Changing)
			S 2	RSS3D16Z	Slide Switch (Selector)
			S 3, 4, 5	RSS3B26Z	Slide Switch (Band, Dubbing, FM Mode/B*P)
			S 7 [1] [TAPE-1]	RFA49ZA	Leaf Switch (Power)
			S 8	ESB6488	Push Switch (Equalizer Mode Selector)
			S 10 [2] [TAPE-2]	RFA49ZA	Leaf Switch (Power)
			S 11 [2] [TAPE-2]	RFA42ZA	Leaf Switch (Play)
			<u>JACKS</u>		
			J 1, 2	RJF1081Y	Jack, LINE IN
			J 3	RJJ1D25Z	Jack, Mixing MIC
			J 4	RJJ1D29Z	Jack, Headphones
			J 5	RJJ1A2Y	Jack, AC IN/with S6 Δ

ELECTRICAL PARTS LIST

Numbering System of Resistor

Example	25	F	J	101	Example	1H	102	Z	F
ERD	Wattage	Shape	Tolerance	Value (100Ω)	ECKD	Voltage	Value (1000 pF)	Tolerance	Peculiarity
ERX	2	AN	J	2R2	ECEA	50	M	R47	
Type	Wattage	Shape	Tolerance	Value (2.2Ω)	Type	Voltage	Peculiarity	Value (0.47 μF)	

Resistor Type	Wattage	Tolerance
ERD: Carbon	10 : 1/8 W J : ±5%	
ERG: Metal Film	12 : 1/2 W	
ERX: Metal Film	25 : 1/4 W	
ERQ: Fuse Type Metal	1 : 1 W	
RRD: Carbon (Chip Type)	18 : 1/8 W	

REPLACEMENT PARTS LIST

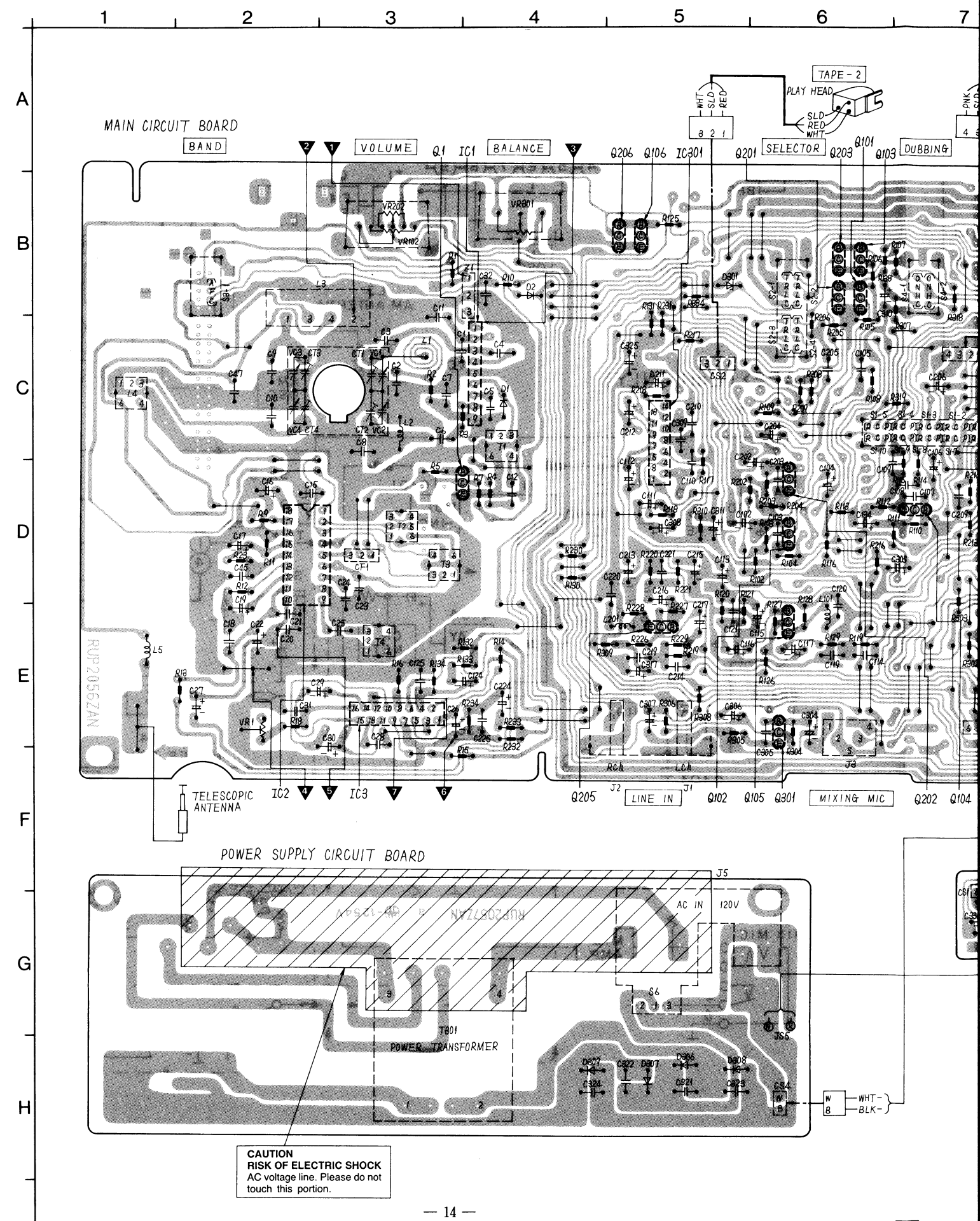
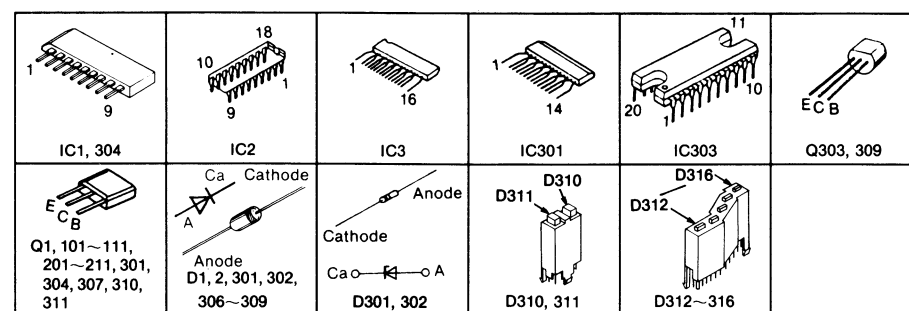
Important safety notice
Components identified by Δ mark have special characteristics important for safety.
When replacing any of these components, use only manufacturer's specified parts.

Numbering System of Capacitor

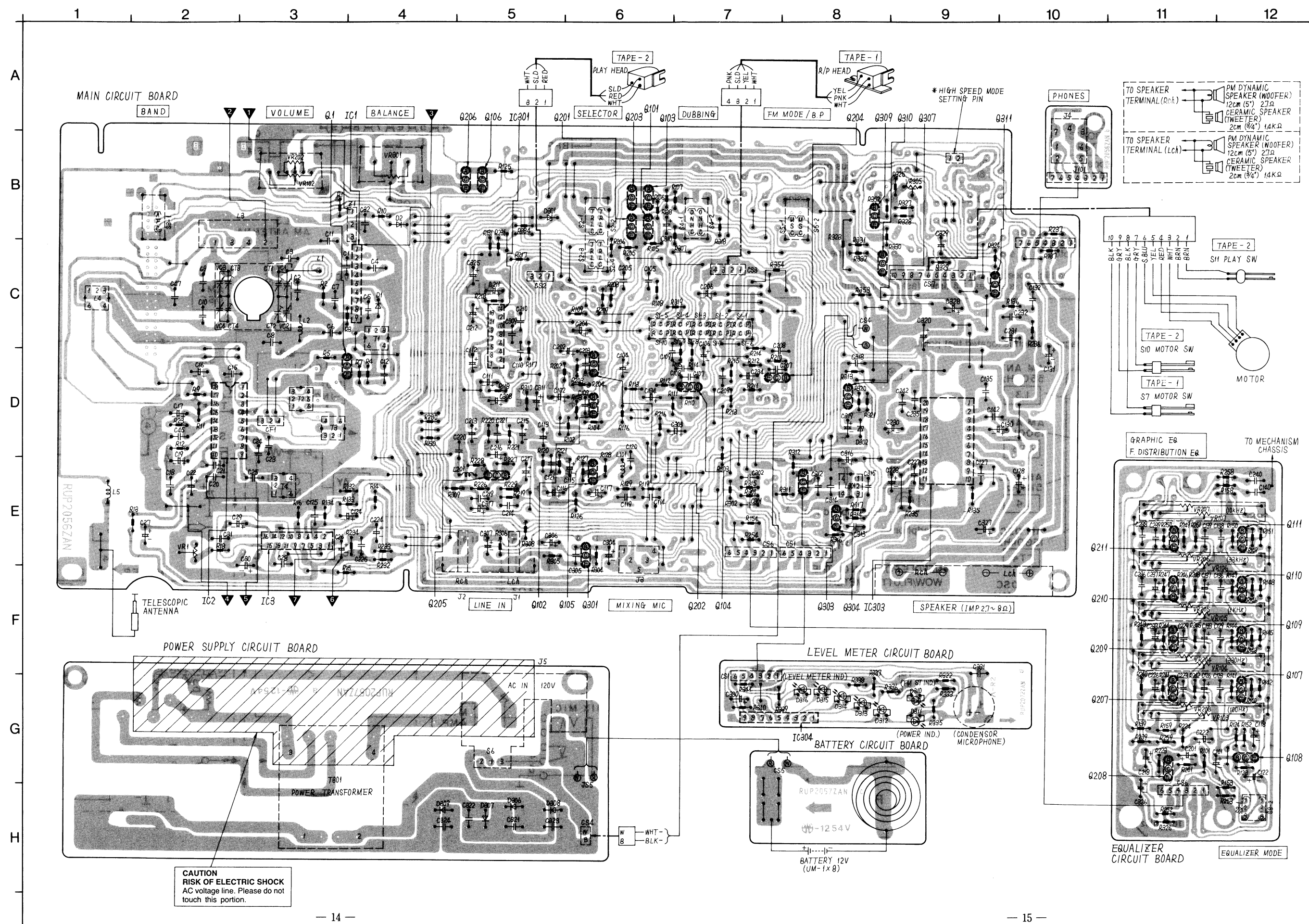
Example	1H	102	Z	F
ECKD	Voltage	Value (1000 pF)	Tolerance	Peculiarity
ECEA	50	M	R47	
Type	Voltage	Peculiarity	Value (0.47 μF)	

Capacitor Type	Voltage	Tolerance
ECEA: Electrolytic	0J : 6.3 V	C : ±0.25 pF
ECCD: Ceramic	1A : 10 V	J : ±5%
ECKD: Ceramic	1C : 16 V	K : ±10%
ECQM: Polyester	1E : 25 V	Z : +80%, -20%
ECQP: Polypropylene	1H : 50 V	P : +100%, -0%
ECET: Electrolytic	1V : 35 V	
ECEA□□□□: Non Polar Electrolytic	25 : 25 V	
ECUX: Ceramic (Chip Type)	16 : 16 V	

Ref. No.	Part No.	Ref. No.	Part No.	Ref. No.	Part No.	Ref. No.	Part No.
CAPACITORS				RESISTORS			
C 1, 2, 7	ECKD1H102KB	C 118, 218	ECEA1CU100	R 109, 209, 330	ERDS2TJ104		
C 3, 5	ECCD1H180KC	C 120, 220	RCBS1C682KX	R 118, 218	ERDS2TJ121		
C 4	ECCD1H040C	C 123, 139, 223, 239	ECFT1C473MD	R 121, 133, 135, 221, 233, 235, 302, 352	ERDS2TJ682		
C 6	ECCD1H470KC	C 129, 229	ECFT1C153MD				
C 8	ECCD1H120KC	C 130, 230, 317, 325	ECEA1AU101	R 3	ERDS2TJ4R7	R 123, 223	ERDS2TJ474
C 9	ECCD1H020C			R 5	ERDS2TJ334	R 125, 308, 318, 319, 321, 327, 329	ERDS2TJ102
C 10	ECCD1H070DC	C 131, 231	ECEA1AU102	R 7, 106, 206, 307	ERDS2TJ471		
C 11, 32, 47	ECCD1H331K	C 132, 232	ECFT1C683MD	R 10, 14, 104, 112, 204, 212, 320	ERDS2TJ470	R 128, 228	ERDS2TJ821
C 12, 318	ECKD1H103ZF	C 133, 233	ECEA1HUR47			R 131, 231	ERDS2TJ221
C 15, 18, 21, 23, 24, 45, 125, 225, 302, 315	ECFT1C223MD	C 135, 235, 301	ECFT1C473MD			R 132, 232	ERDS2TJ391
		C 136, 236	RCBS1C472MX			R 136, 236	ERDS2TJ2R2
		C 137, 237	ECEA1HUR22			R 139, 239	ERDS2TJ471
		C 138, 238	RCBS1C152MX			R 140, 143, 240, 243	ERDS2TJ124
C 16, 22, 26, 111, 128, 211, 228, 310	ECEA0JU101	C 139, 239	ERDS2TJ471	R 11, 116, 130, 154, 216, 230, 254, 314	ERDS2TJ473	R 141, 144, 241, 244	ERDS2TJ391
		C 140, 240	ECFT1C223MD			R 142, 145, 148, 151, 242, 245, 248, 251	ERDS2TJ682
		C 303	ECEA0JU221				
C 17, 308, 311	ECEA1CU100	C 307, 316, 319	ECEA1AU221	R 12, 23, 115, 117, 129, 138, 215, 217, 229, 301, 303, 306, 312	ERDS2TJ222	R 146, 246	ERDS2TJ104
C 19, 29, 112, 212, 304, 306	ECEA1HU0R1	C 309	RCBS1H331KB			R 147, 150, 153, 247, 250, 253	ERDS2TJ331
C 20	ECKD1H471KB	C 312	ECCD1H181K			R 149, 249	ERDS2TJ823
C 25	ECCD1H390KC	C 313	RCBS1H221KB			R 158, 258	ERDS2TJ821
		C 314	ECQP2A272JZ			R 304	ERDS2TJ474
C 27, 30, 102, 106, 116, 117, 202, 206, 216, 217	ECEA1HU010	C 320	ECEA1CU332	R 13, 353	ERDS2TJ330	R 310	ERDS2TJ335
		C 321, 322, 323, 324	ECKD1H103ZF	R 15, 108, 113, 119, 208, 213, 219, 325	ERDS2TJ103	R 316	ERDS2TJ6R8
		C 326	ECEA1AU101			R 322	ERDS2TJ222
		C 327, 328	ECEA1CU221	R 16, 305, 313	ERDS2TJ681	R 323	ERX1ANJPR47
		C 329	ECEA1CU330	R 18	ERDS2TJ822	R 326	ERDS2TJ151
C 28, 142, 242	ECFT1C153MD	C 330	ECEA1CU100	R 101, 124, 152, 159, 201, 224, 252, 259	ERDS2TJ472		
C 31	ECQM1H102KV	C 331	RCBS1H221KB			R 333	ERDS2TJ152
C 101, 122, 126, 201, 206, 222	ECEA1HU010			R 102, 111, 120, 202, 211, 220, 328	ERDS2TJ223	R 335, 336, 337, 338, 339	ERD2TJ102
C 103, 107, 110, 121, 127, 203, 207, 210, 221, 227, 305	RCBS1H102KB					R 340	ERDS2TJ103
				R 103, 110, 127, 203, 210, 227	ERDS2TJ105	R 341	ERDS2TJ272
C 104, 113, 134, 204, 213, 234	ECEA1HUR47			R 105, 114, 205, 214	ERDS2TJ122		
C 105, 108, 205, 208	ECQV1H124JZ			R 107, 126, 134, 226, 234, 311, 315, 324, 331, 332	ERDS2TJ472		
C 109, 209	RCBS1C103NY						
C 114, 119, 214, 219	RCBS1C222MX						
C 115, 124, 215, 224	ECEA1HUR22						



CIRCUIT BOARDS AND WIRING CONNECTION DIAGRAM



■ TAPE ADJUSTMENT

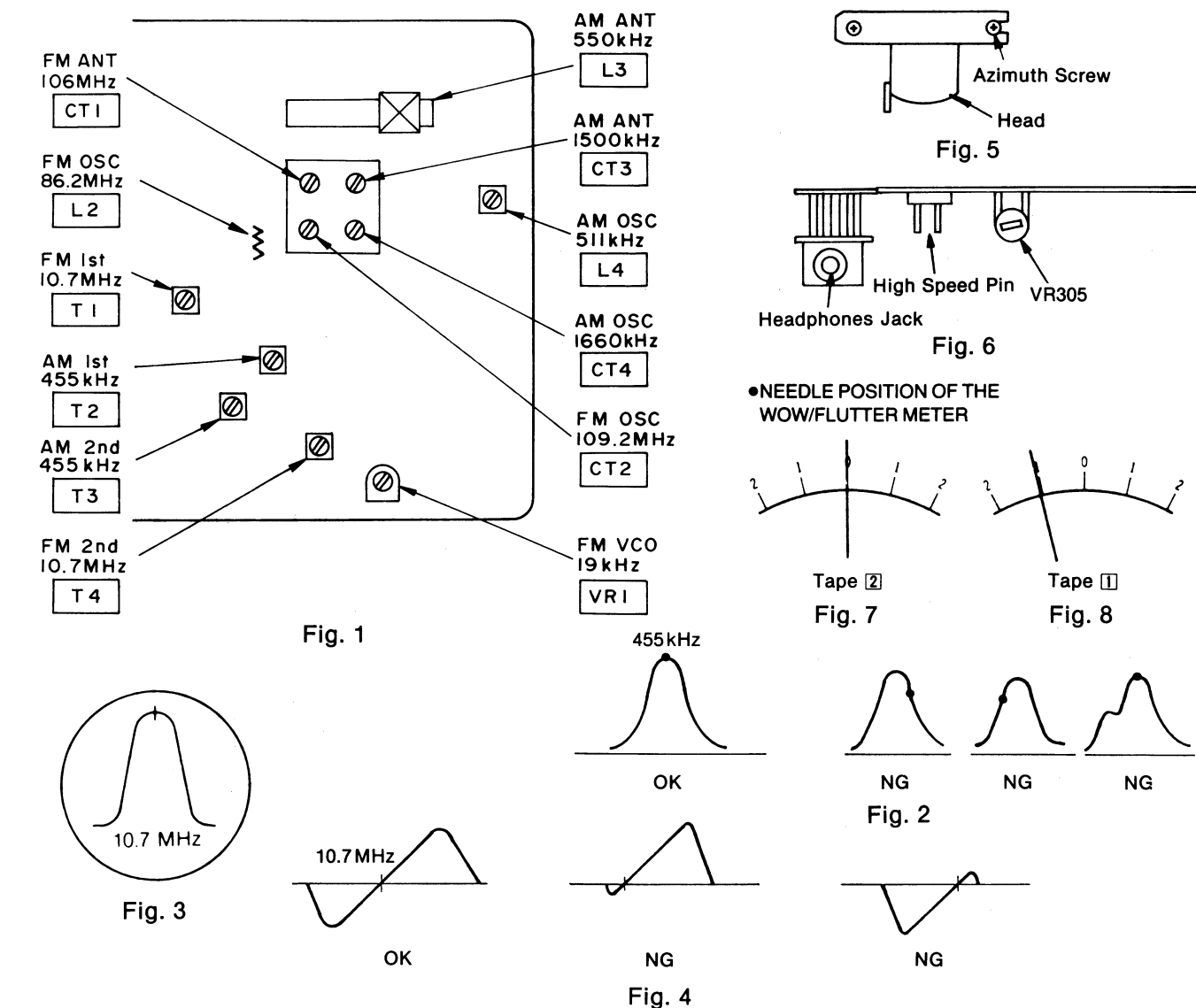
ITEM	INPUT	MEASUREMENT POINT	SPECIFICATION	ADJUSTMENT POINT	REMARKS
Azimuth (Tape [1] & [2])	QZZCFM (8 kHz, -20 dB)	SP OUT (AC voltmeter & Oscilloscope)	Maximum output.	Azimuth screw (FWD, REV)	Playback mode Mode switch→STEREO (Refer to Fig. 5)

■ TAPE SPEED ADJUSTMENT

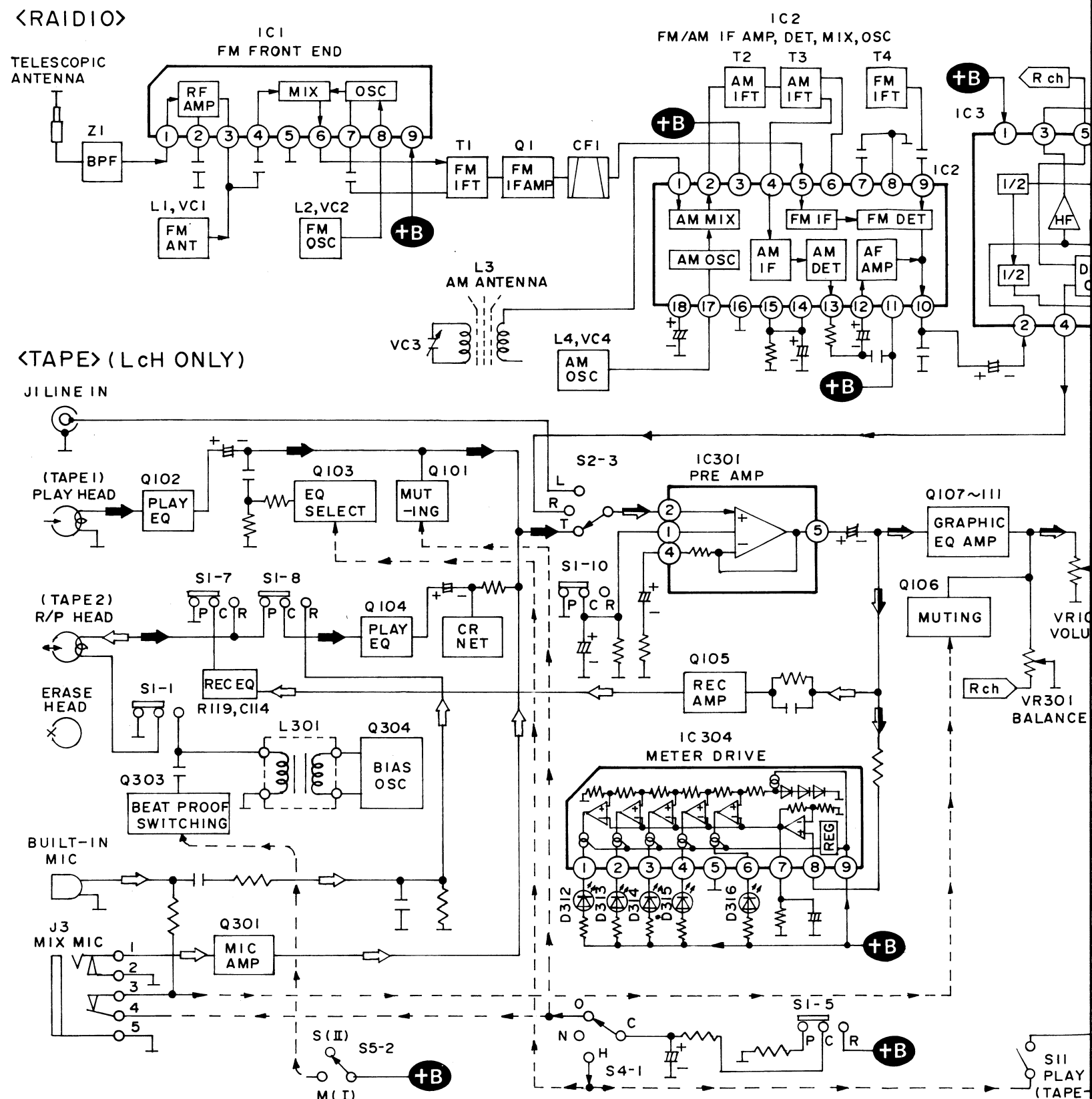
ITEM	FM SIGNAL GENERATOR SOURCE CONNECTION	EQUIPMENT CONNECTION ELECTRONIC COUNTER	ADJUSTMENT	REMARKS
Tape speed adjustment (Tape [1] & [2])	QZZCWAT (3kHz)	Headphone Jack (32Ω)	VR305 [Tape 2] (Refer to Fig. 6)	Normal Speed Adjustment 1. Insert a test tape (QZZCWAT) in tape [2] and play it back. 2. Adjust VR305 until the measured value becomes 3.010 ± 30 Hz. (Refer to Fig. 7 & 8 when using a wow/flutter meter.) 3. Check tape [1] in the same way to make sure it satisfies the specification. Tape [1].....-30±45Hz of the speed of tape [2]. If it doesn't repeat steps 1 and 2 above. Note: This set uses one drive motor, so be sure to perform the adjustment in tape [2]. High Speed Measurement 4. Short the high speed pin to set the high speed mode. 5. Check to be sure that the measured speed is at least 1.8 times faster than normal speed.

■ ALIGNMENT POINT

* Please refer to Circuit Board and Wiring Connection Diagram which is located test point.

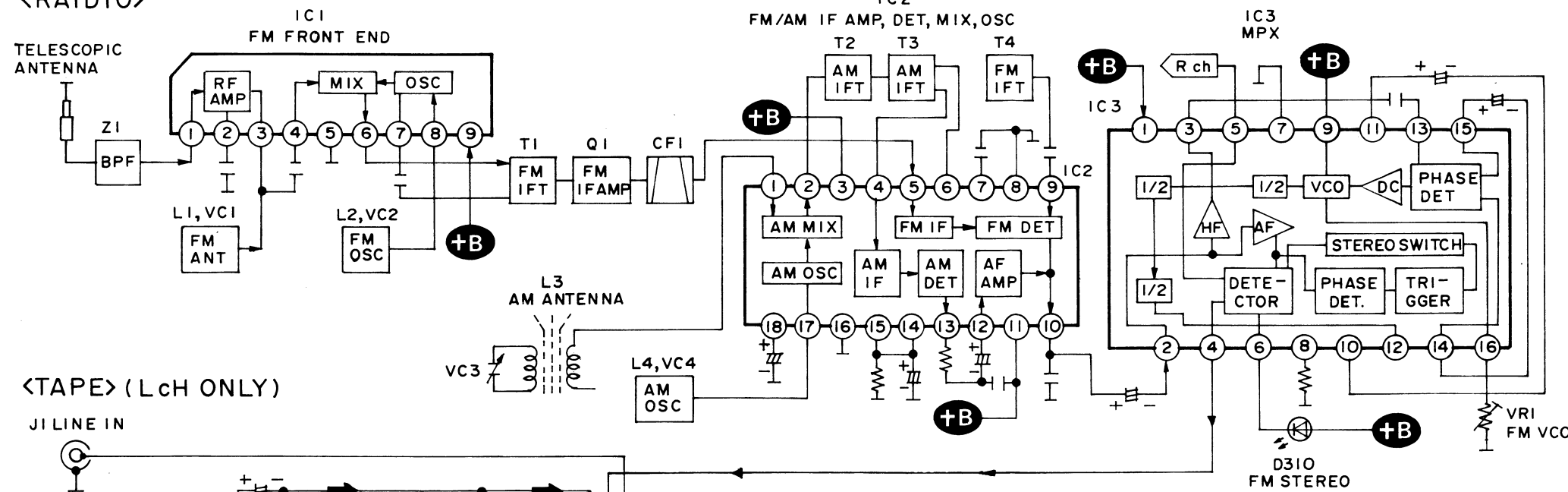


BLOCK DIAGRAM



BLOCK DIAGRAM

<RAIDIO>

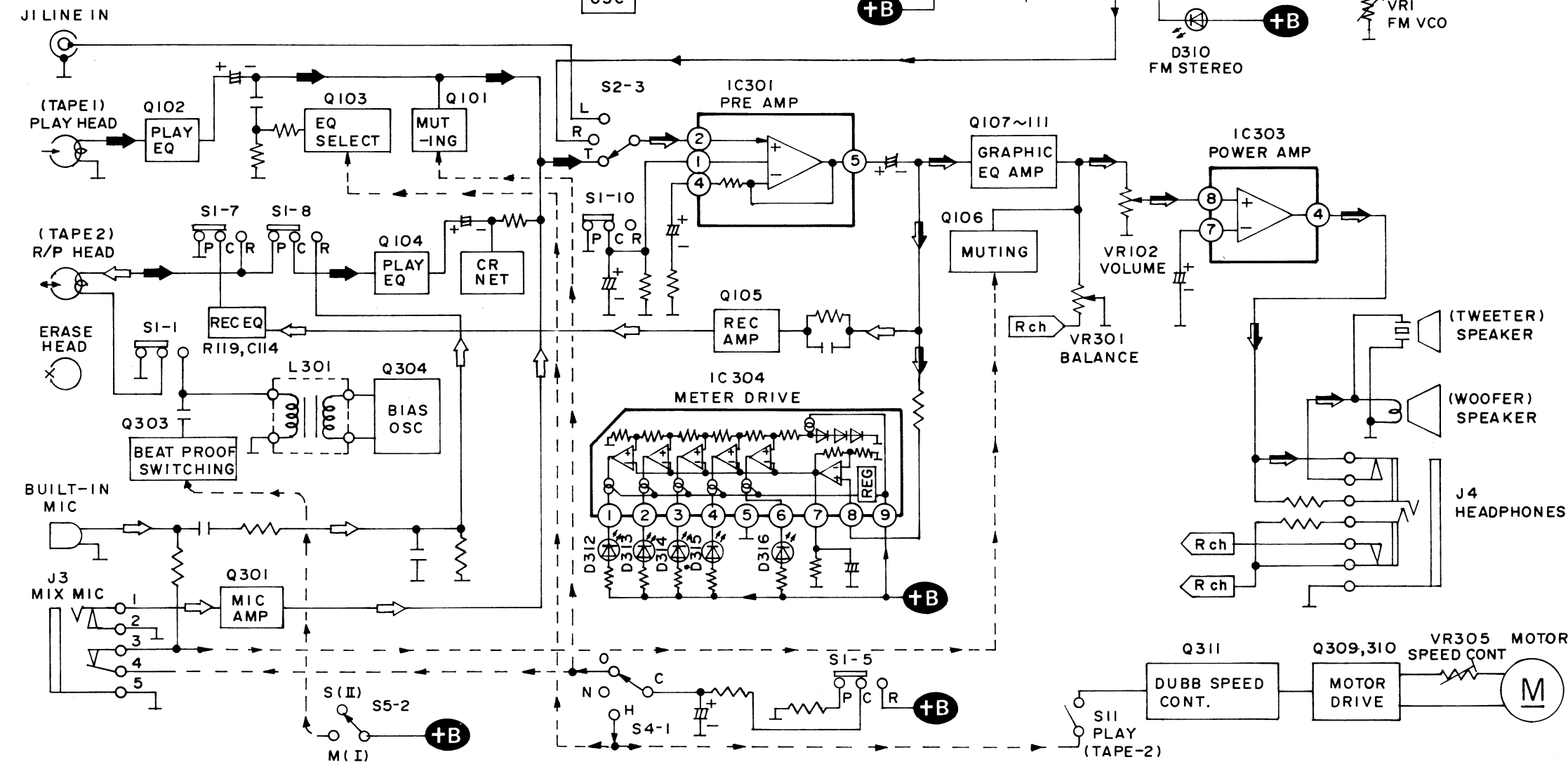


NOTES:

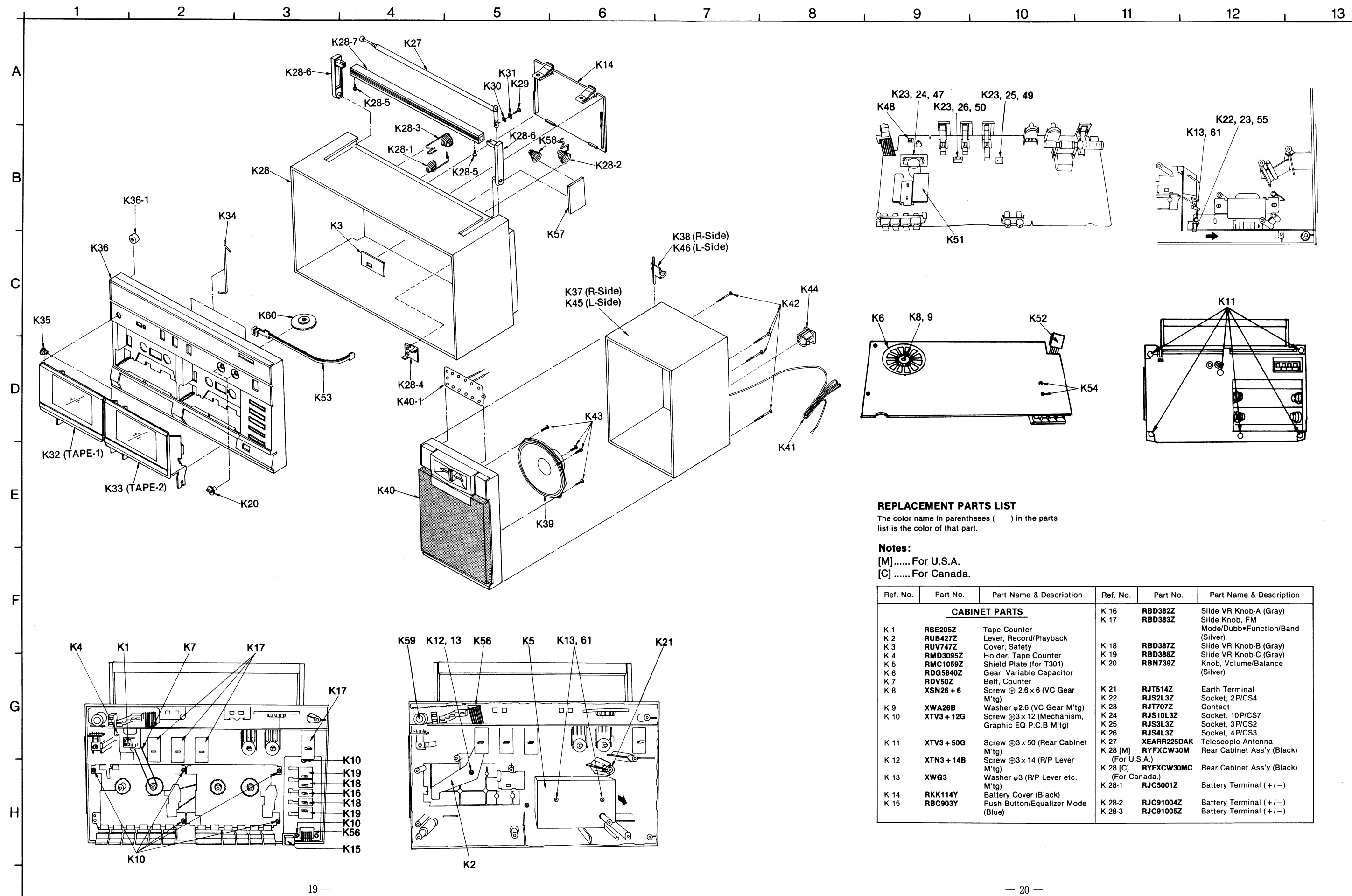
1. S1-1—S1-10: Record/playback select switch in "Playback" position.
2. S2-1—S2-4: Function select switch in "TAPE/OFF" position.
3. S3-1: Band select switch in "AM" position.
4. S4-1, S4-2: Dubbing speed select switch in "OFF" position.
5. S5-1, S5-2: FM mode/beat proof switch in "FM ST/II" position.
6. S6: AC/DC IN select switch in "AC IN" position.
7. S7: Motor ON/OFF switch in "OFF" position. [TAPE-1]
8. S8-1, S8-2: Equalizer mode select switch in "G. EQ" position.
9. S10: Motor ON/OFF switch in "OFF" position.
10. S11: Play switch in "OFF" position.
11. VR1: VCO oscillator frequency adjust VR.
12. VR102, 202: Volume control.
13. VR103—107, 203—207: Equalizer control (100Hz/330Hz/1kHz/33kHz/10kHz).
14. VR301: Balance control.
15. VR305: Tape speed adjustment VR.

→ Playback signal
 → Recording signal
 → Main (Playback/Recording) signal
 - - - Control signal

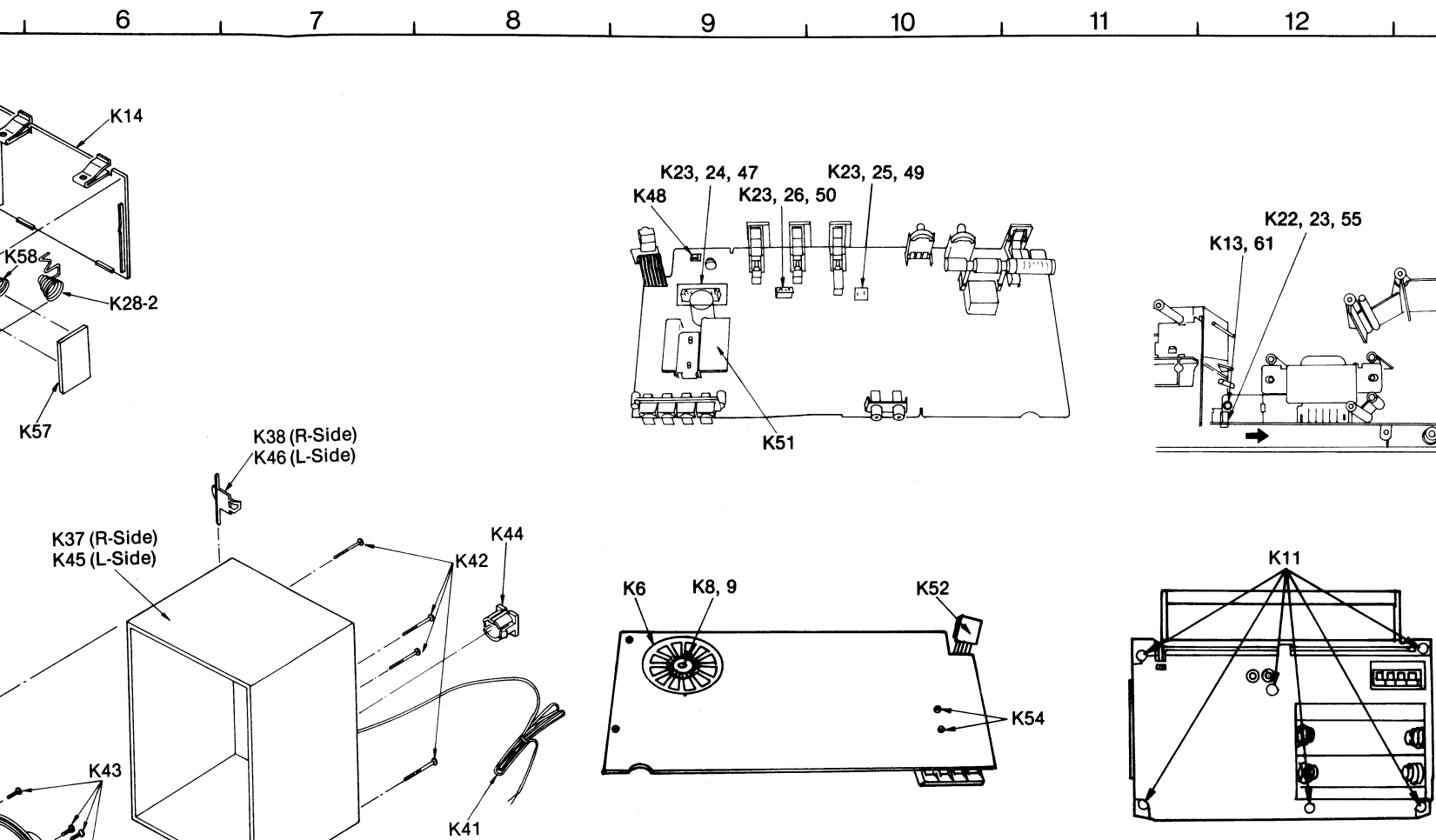
<TAPE> (Lch ONLY)



CABINET PARTS LOCATION



CABINET PARTS LOCATION



REPLACEMENT PARTS LIST

The color name in parentheses () in the parts list is the color of that part.

Notes:

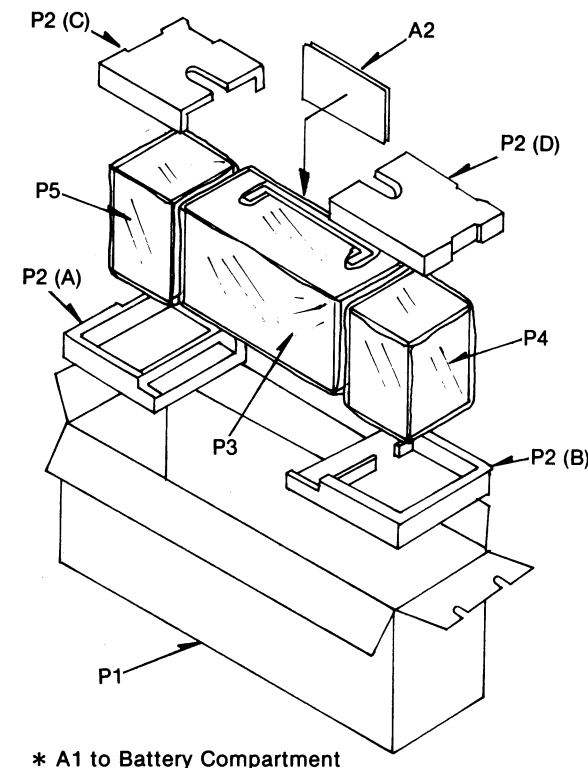
[M]..... For U.S.A.

[C]..... For Canada.

Ref. No.	Part No.	Part Name & Description	Ref. No.	Part No.	Part Name & Description
CABINET PARTS					
K 1	RSE205Z	Tape Counter	K 16	RBD382Z	Slide VR Knob-A (Gray)
K 2	RUB427Z	Lever, Record/Playback	K 17	RBD383Z	Slide Knob, FM Mode/Dubb•Function/Band (Silver)
K 3	RUV747Z	Cover, Safety	K 18	RBD387Z	Slide VR Knob-B (Gray)
K 4	RMD3095Z	Holder, Tape Counter	K 19	RBD388Z	Slide VR Knob-C (Gray)
K 5	RMC1059Z	Shield Plate (for T301)	K 20	RBN739Z	Knob, Volume/Balance (Silver)
K 6	RDG5840Z	Gear, Variable Capacitor	K 21	RJT514Z	Earth Terminal
K 7	RDV50Z	Belt, Counter	K 22	RJS2L3Z	Socket, 2P/CS4
K 8	XSN26 + 6	Screw Φ 2.6 $\times$ 6 (VC Gear M'tg)	K 23	RJT707Z	Contact
K 9	XWA26B	Washer Φ 2.6 (VC Gear M'tg)	K 24	RJS10L3Z	Socket, 10P/CS7
K 10	XTV3 + 12G	Screw Φ 3 $\times$ 12 (Mechanism, Graphic EQ P.C.B M'tg)	K 25	RJS3L3Z	Socket, 3P/CS2
K 11	XTV3 + 50G	Screw Φ 3 $\times$ 50 (Rear Cabinet M'tg)	K 26	RJS4L3Z	Socket, 4P/CS3
K 12	XTN3 + 14B	Screw Φ 3 $\times$ 14 (R/P Lever M'tg)	K 27	XEARR225DAK	Telescopic Antenna
K 13	XWG3	Washer Φ 3 (R/P Lever etc. M'tg)	K 28 [M]	RYFXCW30M	Rear Cabinet Ass'y (Black) (For U.S.A.)
K 14	RKK114Y	Battery Cover (Black)	K 28 [C]	RYFXCW30MC	Rear Cabinet Ass'y (Black) (For Canada.)
K 15	RBC903Y	Push Button/Equalizer Mode (Blue)	K 28-1	RJC5001Z	Battery Terminal (+/-)
			K 28-2	RJC91004Z	Battery Terminal (+/-)
			K 28-3	RJC91005Z	Battery Terminal (+/-)

Ref. No.	Part No.	Part Name & Description	Ref. No.	Part No.	Part Name & Description
K 28-4	RJT1039Z	Antenna Terminal	K 43	XTV3 + 8G	Screw Φ 3 $\times$ 8 (Speaker M'tg)
K 28-5	XTC3 + 10CFZ	Screw Φ 3 $\times$ 10 (Handle M'tg)	K 44	RHR171Z	Cord Clamper (Black)
K 28-6	RKX363Z	Arm, Handle (Silver)	K 45	RKF752Y	Speaker Rear Cabinet-L Ass'y (Black)
K 28-7	RKX351Z	Pipe, Handle (Black)	K 46	RGE76Y	Lock Plate-L, Speaker (Black)
K 29	XSN3 + 12BNS	Screw Φ 3 $\times$ 12 (Antenna M'tg)	K 47	RJP10G4Y	Plug, 10P/CS7
K 30	XWA3BFN	Washer Φ 3 (Antenna M'tg)	K 48	RJP2G1Z	2P Post (for High Speed Mode Setting)
K 31	XWG3FN	Washer Φ 3 (Antenna M'tg)			
K 32 [1]	RYQ1XCW30M	Cassette Compartment Cover Ass'y (Black)	K 49	RJP3G4Y	Plug, 3P/CS2
K 33 [2]	RYQ2XCW30M	Cassette Compartment Cover Ass'y (Black)	K 50	RJP4G4Y	Plug, 4P/CS3
K 34	RUS658Z	Spring, Cassette Cover	K 51	RMV185Z	Heat Sink
K 35	RDG578Z	Gear, Cassette	K 52	RUP2056Z	Circuit Board, Headphones
K 36	RYM1XCW30M	Front Cabinet Ass'y (Black)	K 53	RDP311Z	Dial Pointer (White)
K 36-1	RHG728Z	Rubber, Microphone	K 54	XTV3 + 8B	Screw Φ 3 $\times$ 8 (Heat Sink M'tg)
K 37	RKF752Z	Speaker Rear Cabinet-R Ass'y (Black)	K 55	RJP2G4Y	Plug, 2P/CS4
K 38	RGE76X	Lock Plate-R, Speaker (Black)	K 56	RJS6T1Z	Ribbon Socket, 6P/CS1, 6
K 39	EAS12P233SJ	Speaker, Woofer	K 57	RUP2057Z	Circuit Board, Battery Terminal
K 40	RYM2XCW30M	Speaker Front Cabinet Ass'y (Black)	K 58	RJC50003Z	Battery Terminal (-)
K 40-1	RAFCB2847AB	Speaker, Tweeter	K 59	RJM154Z	Condenser Microphone
K 41	RJE123Y	Cord, Speaker	K 60	RBT262Z	Knob, Tuning (Black)
K 42	XTV3 + 25G	Screw Φ 3 $\times$ 25 (Speaker Cabinet M'tg)	K 61	XTN2 + 12B	Screw Φ 3 $\times$ 12 (Shield Plate, AC Jack M'tg)

ACCESSORY AND PACKING MATERIALS



* A1 to Battery Compartment

REPLACEMENT PARTS LIST

Important safety notice
Components identified by Δ mark have special characteristics important for safety.
When replacing any of these components, use only manufacturer's specified parts.

Notes:

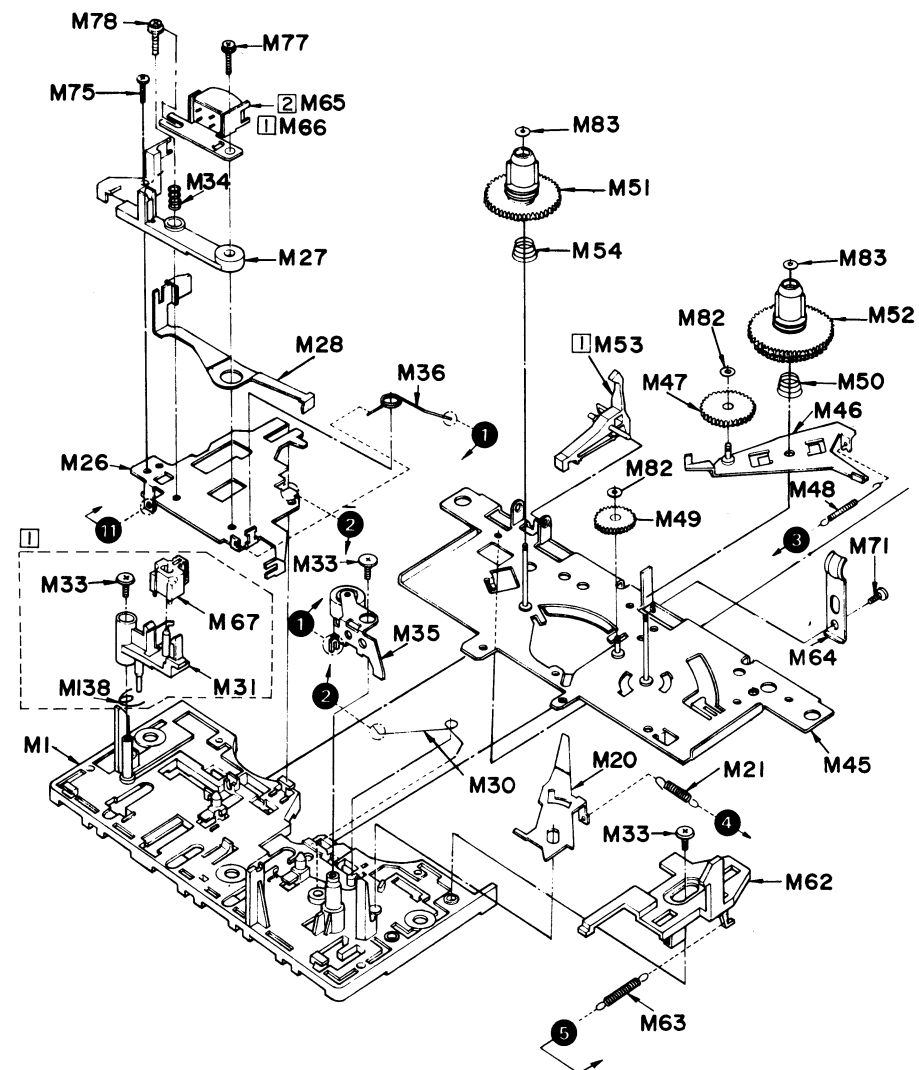
[M]..... For U.S.A.

[C]..... For Canada.

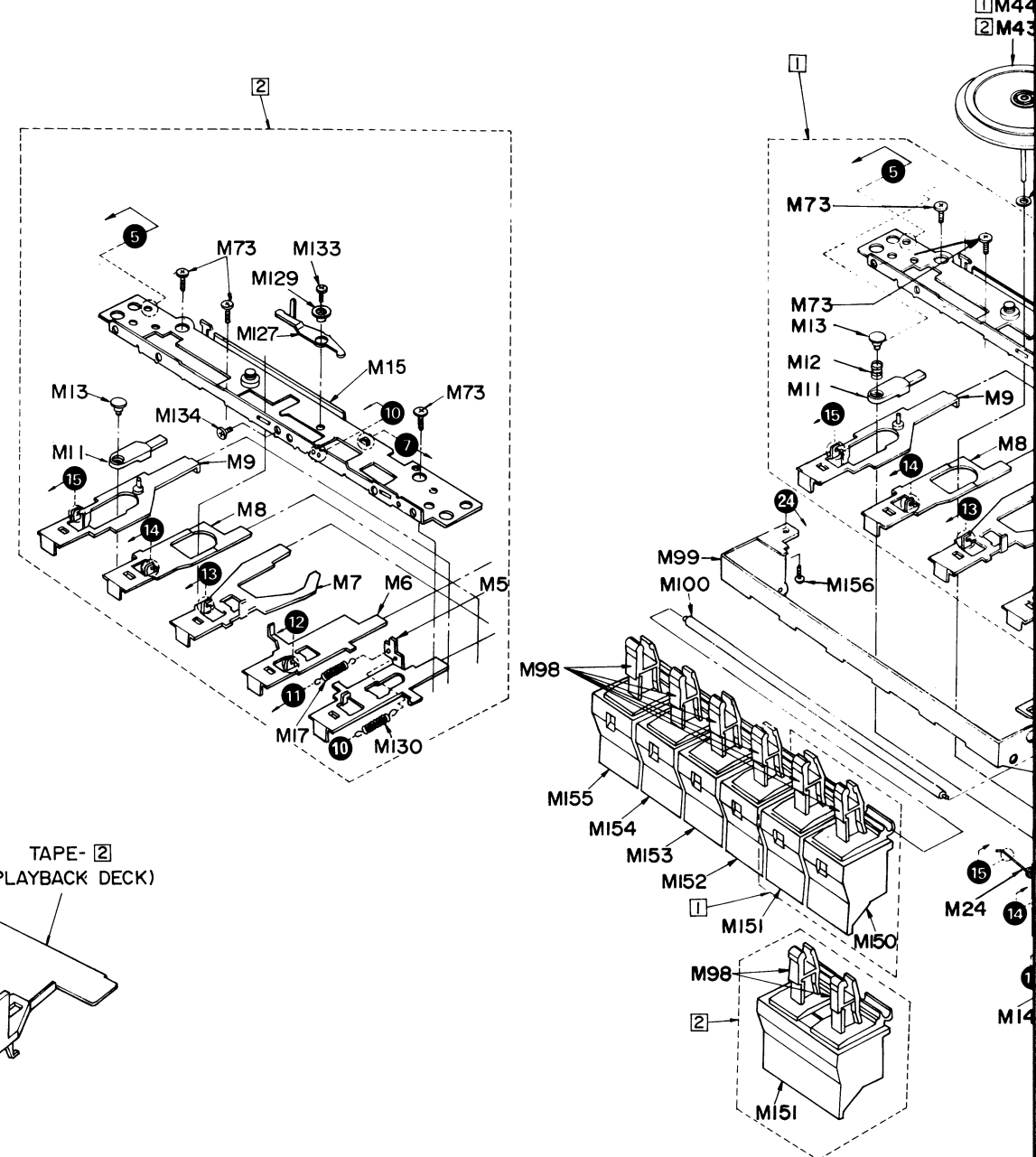
Ref. No.	Part No.	Part Name & Description
ACCESSORIES		
A 1 [M]	RJA22X	Power Cord Δ (For U.S.A.)
A 1 [C]	RJA95Z	Power Cord Δ (For Canada.)
A 2 [M]	RQX4723Z	Operating Instruction (For U.S.A.)
A 2 [C]	RQX4748Z	Operating Instruction (For Canada.)
PACKINGS		
P 1 [M]	RPK2232Z	Gift Box (For U.S.A.)
P 1 [C]	RPK2195Z	Gift Box (For Canada.)
P 2	RPN9521Z	Pad Completion
P 3	RPP684Z	Poly Bag (for UNIT)
P 4	RPP685Z	Poly Bag (Speaker-R)
P 5	XZB36X46A01	Poly Bag (Speaker-L)

MECHANISM PARTS LOCATION

< Front View >



< Rear View >



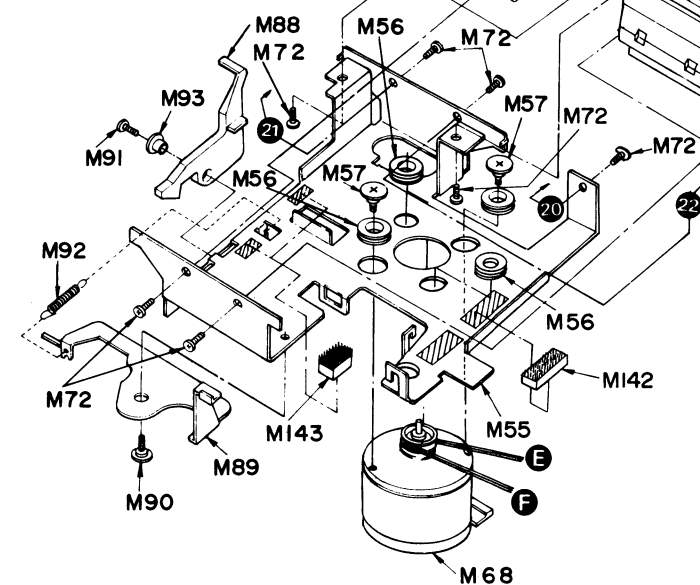
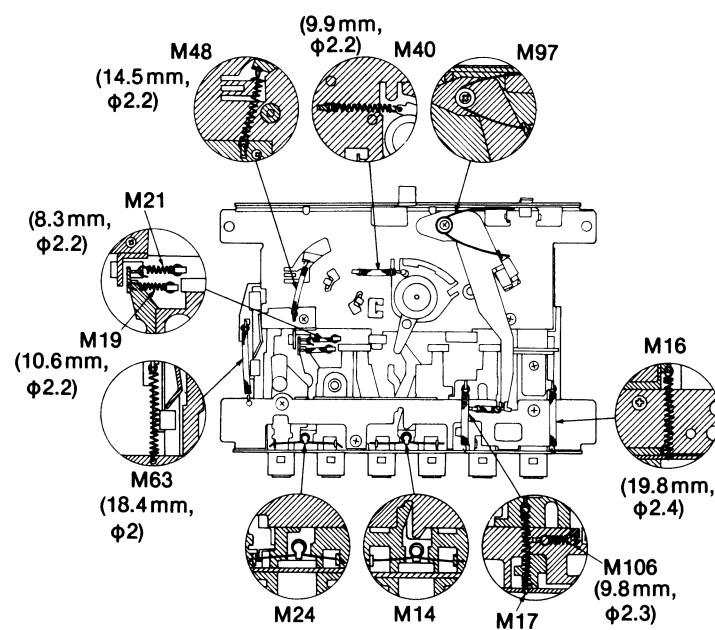
Notes:

- ①..... TAPE-1 (R/P Deck)
 ②..... TAPE-2 (PLAY Deck)

TAPE - ①
 (RECORD/PLAYBACK DECK)

TAPE - ②
 (PLAYBACK DECK)

• SPRING LOCATION (Rear View)

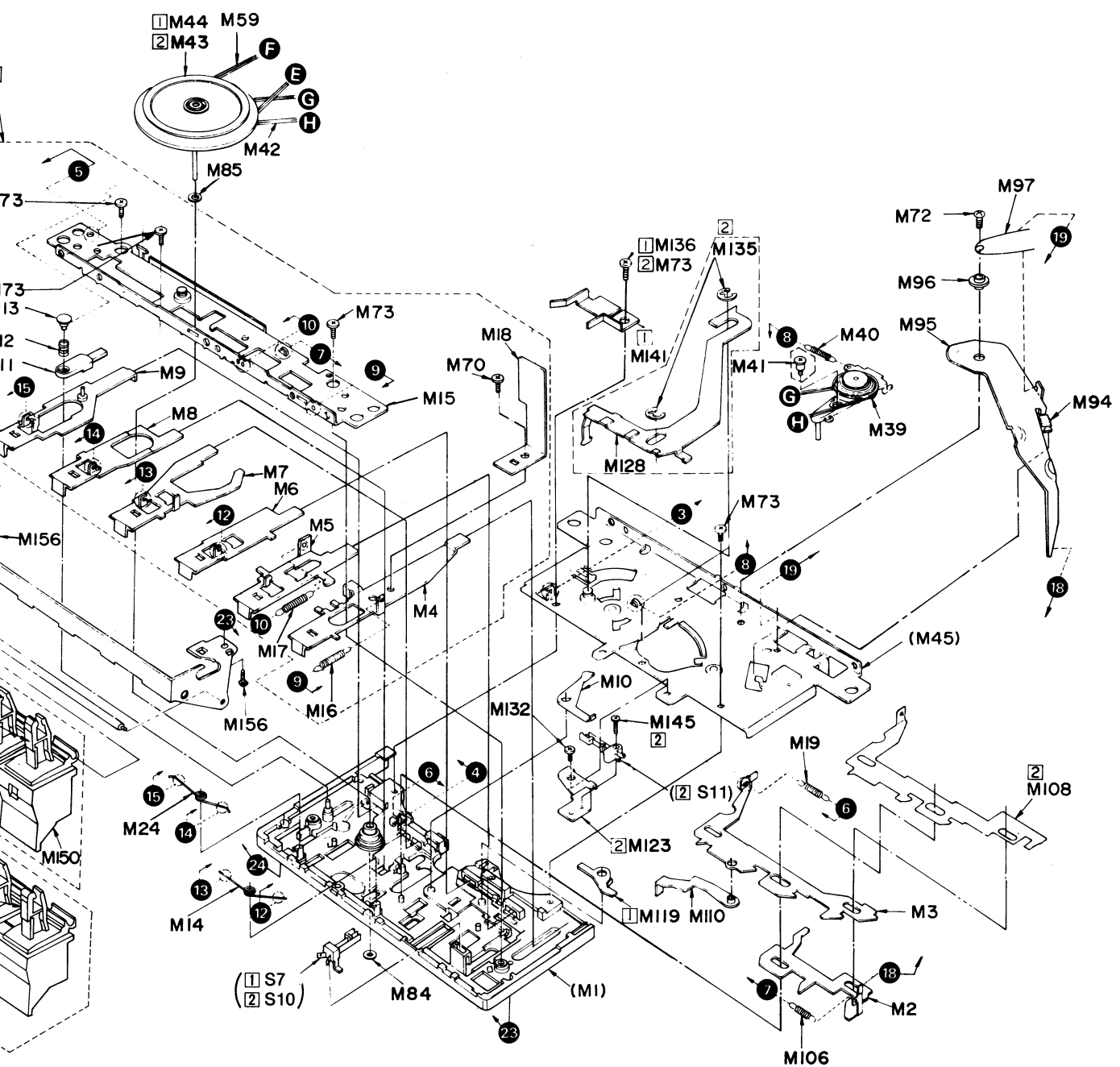


Specifications

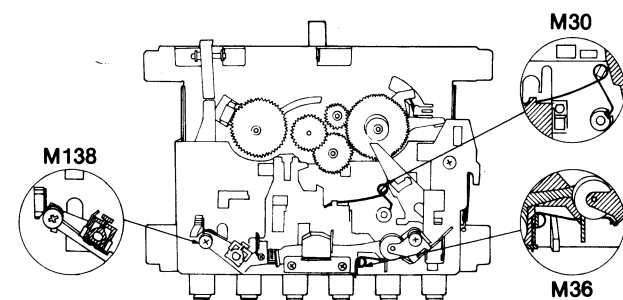
Takeup Tension	More than 150g
Playback torque	25~55g · cm
Fast Forward torque	55~130g · cm
Rewind torque	55~130g · cm
Pressure of pressure roller	300~400g
Wow and flutter	Less than 0.2% (WRMS)

Mechanism Operation: Full Auto Stop.

14 15 16 17 18 19



• SPRING LOCATION (Front View)



MECHANISM PARTS LIST

REPLACEMENT PARTS LIST

The color name in parentheses () in the parts list is the color of that part.

Notes:

[1].....TAPE-1 (R/P Deck)

[2].....TAPE-2 (PLAY Deck)

Ref. No.	Part No.	Part Name & Description	Ref. No.	Part No.	Part Name & Description
MECHANICAL PARTS					
M 1	RFU80Z	Main Base Ass'y	M 65 [2]	RJH2E12X	Head, Playback
M 2	RFY541Z	Plate, Switch	M 66 [1]	RJH2E9X	Head, Record/Playback
M 3 [1]	RFY579Z	Actuator, Push Button	M 67 [1]	RJH2C12XZ	Head, Erase
M 3 [2]	RFY641Z	Actuator, Push Button	M 68	RFM76Z	Motor Ass'y (with Pulley)
M 4 [1]	RFY629Z	Lever, Record Button	M 70	RFE229Z	Screw $\phi 2 \times 3$ (Record Lever M'tg)
M 5 [1]	RFY630Z	Lever, Playback Button	M 71	XTN2 + 3B	Screw $\phi 2 \times 3$ (Cassette Retainer Spring M'tg)
M 5 [2]	RFY640Z	Lever, Playback Button	M 72	XTN2 + 4B	Screw $\phi 2 \times 4$ (Motor Bracket, Leaf Switch Plate etc. M'tg)
M 6 [1]	RFY631Z	Lever, Rewind Button	M 73	XSB2 + 4	Screw $\phi 2 \times 4$ (Sub Base, Reel Table Plate etc. M'tg)
M 6 [2]	RFY638Z	Lever, Rewind Button	M 75	XSN2 + 6	Screw $\phi 2 \times 6$ (Head Base M'tg)
M 7 [1]	RFY632Z	Lever, Fast Forward Button	M 77	XSN2 + 7	Screw $\phi 2 \times 7$ (R/P Head M'tg)
M 7 [2]	RFY639Z	Lever, Fast Forward Button	M 78	RFE230Z	Screw, Azimuth
M 8 [1]	RFY633Z	Lever, Stop/Eject Button	M 82	RFN143Z	Washer (F.F. Gear, Take Up Roller M'tg)
M 8 [2]	RFY642Z	Lever, Stop/Eject Button	M 83	RFN142Z	Washer (Reel Table M'tg)
M 9	RFY634Z	Lever, Pause Button	M 84	RFN123Z	Washer (Flywheel M'tg)
M 10	RFY548Z	Lever, Rewind	M 85	RFN153Z	Washer (for Flywheel)
M 11	RFG86Z	Lever, Pause	M 88	RFY582Z	Lever, Pause Kick-B
M 12 [1]	RFS459Z	Spring, Pause Lever	M 89	RFY583Z	Lever, Pause Kick-A
M 13	RFS536Z	Stopper, Pause	M 90	RFE239Z	Screw (Pause Kick Lever-A M'tg)
M 14	RFS561Z	Spring, Button Lever	M 91	RFE252Z	Screw (Pause Kick Lever-B M'tg)
M 15 [1]	RFU83Z	Sub Plate	M 92	RFY585Z	Spring, Pause Kick Lever
M 15 [2]	RFU70Z	Sub Plate Ass'y	M 93	RFX134Z	Collar, Pause Kick Lever
M 16 [1]	RFS463Z	Spring, Button Lever	M 94	RFI40Z	Rubber, Brake
M 17 [1]	RFS530Z	Spring, Playback Button Lever	M 95	RFY601Z	Lever, Brake
M 17 [2]	RFS566Z	Spring, Playback Button Lever	M 96	RFX138Z	Collar, Brake Lever
M 18 [1]	RFS562Z	Plate, Recording Spring	M 97	RFS579Z	Spring, Brake Lever
M 19	RFS466Z	Spring, Actuator	M 98	RFY636Z	Lever, Operation
M 20	RFY549Z	Lever, Auto	M 99	RFD252Z	Frame, Button
M 21	RFS590Z	Spring, Auto Lever	M 100	RFY637Z	Shaft, Button
M 24	RFS462Z	Spring, Button Lever	M 106	RFS567Z	Spring, Switch Lever
M 26 [1]	RFE227Z	Panel, Head	M 108 [2]	RFE253Z	Stopper, RC
M 26 [2]	RFU72Z	Panel, Head	M 110	RFY591Z	Lever, E Kick
M 27	RFU39Z	Head Base	M 119 [1]	RFX101Z	Stopper, Record/Playback
M 28	RFY394Z	Sensing Plate Ass'y	M 123 [2]	RFD230Z	Bracket, Leaf Switch
M 30 [1]	RFS531Z	Spring, Head Panel	M 127 [2]	RFY589Z	Lever, RC
M 30 [2]	RFS569Z	Spring, Head Panel	M 128 [2]	RFY573Z	Lever, RC Slide
M 31 [1]	RFY391Z	Arm, Magnet	M 129 [2]	RFX130Z	Collar, RC Lever
M 33	RFE251Z	Screw (Erase Head, Pinch Roller etc. M'tg)	M 130 [2]	RFS572Z	Spring, RC Lever
M 34	RFS447Z	Spring, Azimuth	M 132	RFE221Z	Screw $\phi 2 \times 5$ (Leaf Switch Bracket M'tg)
M 35 [1]	RFR29Z	Pinch Roller Arm Ass'y	M 133 [2]	XQS2 + 25	Screw $\phi 2 \times 25$ (RC Lever M'tg)
M 35 [2]	RFR35Z	Pinch Roller Arm Ass'y	M 134 [2]	RFE91Z	Screw $\phi 2 \times 2$ (Motor Bracket M'tg)
M 36 [1]	RFS448Z	Spring, Pinch Roller	M 135 [2]	XUC2FT	Stop Ring $\phi 2$ (RC Slide Lever M'tg)
M 36 [2]	RFS568Z	Spring, Pinch Roller	M 136 [1]	RFE222Z	Screw $\phi 2 \times 6$ (Pause Protect Bracket M'tg)
M 39	RFO42Z	R/F Pulley Arm Ass'y	M 138 [1]	RFS535Z	Spring, Magnet Arm
M 40	RFS532Z	Spring, R/F Pulley Arm	M 141	RFD232Z	Bracket, Pause Protect
M 41	RFE172Z	Screw (R/F Pulley Arm M'tg)	M 142	RFI39Z	Mat-A
M 42	RFB62Z	Belt, REW/F.F.	M 143	RFI35Z	Mat-B
M 43 [2]	RFF39Z	Flywheel Ass'y	M 145 [2]	RFE102Z	Screw $\phi 1.7 \times 45$ (Leaf Switch M'tg)
M 44 [1]	RFF40Z	Flywheel Ass'y	M 150 [1]	RBC883Z	Button, Record (Silver)
M 45 [1]	RFU79Z	Reel Base Ass'y	M 151 [1]	RBC884Z	Button, Playback (Silver)
M 46	RFY635Z	Take Up Gear Plate Ass'y	M 151 [2]	RBC889Z	Button, Playback (Silver)
M 47	RFG85Z	Gear, Take Up Roller	M 152	RBC885Z	Button, Rewind (Silver)
M 48 [1]	RFS450Z	Spring, Take Up Gear Plate	M 153	RBC886Z	Button, Fast Forward (Silver)
M 48 [2]	RFS570Z	Spring, Take Up Gear Plate	M 154	RBC887Z	Button, Stop/Eject (Silver)
M 49	RFG62Z	Gear, Fast Forward	M 155	RBC888Z	Button, Pause (Silver)
M 50	RFS537Z	Spring, Back Tension-R	M 156	XQN2 + A7FZ	Screw $\phi 2 \times 7$ (Button Frame M'tg)
M 51	RFJ50Z	Supply Reel Ass'y			
M 52	RFJ57Z	Take Up Reel Ass'y			
M 53 [1]	SMQ477B	Lever, Erase Safety			
M 54	RFS563Z	Spring, Back Tension-L			
M 55	RFD228Z	Bracket, Motor			
M 56	RFI27Z	Rubber, Motor			
M 57	SMQ491B	Screw (Motor M'tg)			
M 59	RFB63Z	Belt, Flywheel			
M 62	RFY581Z	Lever, Eject Slide			
M 63	RFS564Z	Spring, Eject Slide Lever			
M 64	RFS591Z	Spring, Cassette Retainer			

■ DISASSEMBLY OF MECHANISM

Removal of the motor attachment bracket will separate the Tape 1 and Tape 2 units.

1. Remove the flywheel belt and secure it to the motor.
2. Remove the motor attachment bracket.

Seven screws (2×4)mm

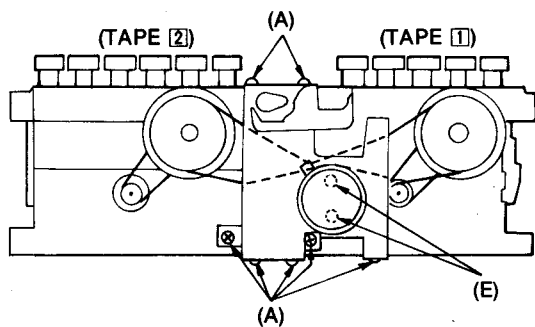


Fig. 1

■ ASSEMBLY OF MOTOR ASS'Y

1. Attach both flywheel belts to the motor pulley.
2. Turn the flywheel belts to the rear and attach them temporarily to the motor terminal (broken lines).
3. Attach the motor ass'y to tape 1 and tape 2 mechanisms with the seven screws (A).
4. Attach the flywheel belts to the flywheels (solid line).

■ DISASSEMBLY OF MAJOR MECHANISM PARTS

• Head

Remove the two screws (2×7)mm (B). (See Fig. 2.) (Be sure to adjust the azimuth after reattaching.)

• Pinch roller

Remove the screw (3×6)mm (C). (See Fig. 2.)

• Erasure head

(Tape 1 unit only)

Remove the screw (3×6)mm (D). (See Fig. 2.)

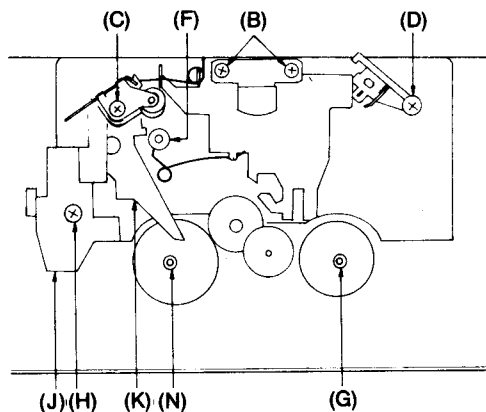


Fig. 2

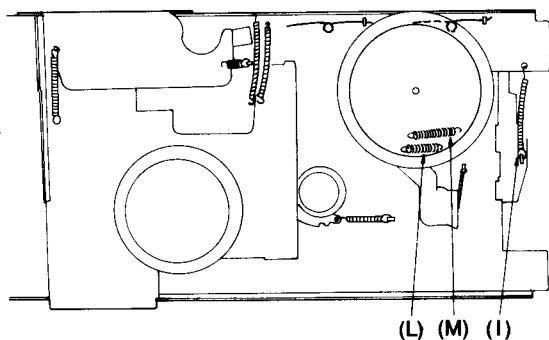


Fig. 3

• Motor

Remove the motor attachment bracket, which will separate the Tape 1 and Tape 2 unit. (See Fig. 1.) Remove the two colored screws (E). (See Fig. 1.)

• Flywheel

Temporarily secure the flywheel belt to the motor that drives it. Remove the Fast Forward belt. Remove the washer (F). (See Fig. 2.)

• Supply reel table

Remove the washer (G). (See Fig. 2.)

• Take-up reel table

Remove the screw (3×6)mm (H). (See Fig. 2.)

Remove the spring (I). (See Fig. 3.)

Remove the cassette eject lever (J). (See Fig. 2.)

Remove the auto lever (K). (See Fig. 2.)

Remove the spring (L). (See Fig. 3.)

Remove the spring (M). (See Fig. 3.)

Remove the washer (N). (See Fig. 2.)

GAD

H.M



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